DOCUMENT RESUME

ED 057 470 EA 003 874

TITLE Educational Policies for the 1970's. Conference on Policies for Educational Growth. (Paris, France, June 3-5, 1970.) General Report.

INSTITUTION Organisation for Economic Cooperation and Development, Paris (France).

PUB DATE 71

NOTE 149p.

AVAILABLE FROM OECD Publications Center, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20006 ($4.25)

EDRS PRICE MF-$0.65 HC-$6.58

DESCRIPTORS *Conference Reports; Economic Development; Educational Administration; Educational Change; Educational Improvement; *Educational Objectives; *Educational Planning; *Educational Policy; Educational Resources; Government Role; *International Organizations

ABSTRACT

The conference was held to assess the nature and consequences of educational expansion in OECD countries during the last 10-15 years and to foresee the main policy problems arising from future continued educational growth. Conference discussion issues included educational policy goals, resources, and structure; educational planning and its relationship to policy; and government machinery and the administration of educational change. A final section presents the conclusions reached for each issue and a list of conference participants. (Author/RA)

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CONFERENCE ON POLICIES FOR EDUCATIONAL GROWTH

PARIS, 3rd - 5th June, 1970

GENERAL REPORT

EDUCATIONAL POLICIES FOR THE 1970'S

EA 003 874

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1971

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The Organisation for Economic Co-operation and Development (OECD) was set up under a Convention signed in Paris on 14th December, 1960, which provides that the OECD shall promote policies designed:

- *to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;*
- *to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;*
- *to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.*

The Members of OECD are Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

AUG 2003

FOREWORD

The 1970 Paris Conference on Policies for Educational Growth was organised by OECD as a sequel to the 1961 Washington Conference on Economic Growth and Investment in Education. The purpose of the Conference was to assess the nature and consequences of the expansion of education in OECD countries during the last 10–15 years and to foresee the main policy problems arising from continued educational growth in the future.

The present publication is the General Report of the Conference published under the title: EDUCATIONAL POLICIES FOR THE 1970s. A series of supporting studies, which were prepared for the Conference, can be obtained from the Secretariat of OECD upon request. They cover the following subjects: Educational Expansion in OECD Countries since 1950; Trends in Educational Expenditure in OECD Countries since 1950; Group Disparities in Educational Participation and Achievement; Teaching Resources and Structural Change; the Development of Educational Planning; Education and Distribution of Income; Alternative Educational Futures in the United States and in Europe: Methods, Issues and Policy Relevance.

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Part One

SUMMARY REPORT

OPENING ADDRESSES

AN OVERVIEW OF PAST TRENDS AND FUTURE ISSUES

SUMMARY REPORT

by
C.H. Frankel, Columbia University, New York,
and
A.H. Halsey, University of Oxford, England

The purpose of the Conference was to discuss educational policies for the 1970s, and we attended as rapporteurs. The Conference was the second of its kind, the first having been held in Washington D.C. in 1961. Listening to the participants, we were struck by the changes of definition in the scope and significance of educational policy which had taken place in the intervening decade and which were reflected in the contrasting emphases at the Paris meeting compared with that in Washington. the general trends are referred to in the papers by Mr. van Lennep, Secretary-General of the OECD, Mr. Billecocq, Secretary of State in the Ministry of Education in France, and Mr. I. Carlsson, Minister of Education, Sweden, and in the Secretariat paper on past trends and future issues, which were submitted to the Conference. The Secretariat refers to two main debates following the Washington Conference, between advocates of fast and slow rates of educational growth, and between advocates of a manpower and a social demand approach to the setting of educational targets. Both debates, the Secretariat argued, and the participants largely agreed, have been outmoded by events. The Secretary-General reminded the Conference that the Ministerial Council of OECD – a club of relatively highly developed Western countries stretching from the USA to Yugoslavia and including Japan – had recently met to set a collective growth target of a 65% increase in GNP between 1970 and 1980. He added that the Ministerial Council had stressed that economic growth is not an end in itself but rather an instrument for improving the quality of life, i.e. that economic growth is a means to pursuing a variety of economic and social objectives. The implication for education is that it is involved as much with the distribution of resources and opportunities as with contributing to their overall growth.

The OECD Secretariat had prepared a series of background reports which are published in a series of separate volumes. Together they afforded the Conference a detailed analysis of the size and shape of educational development in the OECD area during the 1950s and 1960s. In addition, participants had before them replies from the Member countries to an Educational Growth Enquiry conducted by the Secretariat, affording an up-to-date picture of the nature of policy concerns in the countries on the main issues discussed at the Conference.

As was noted by many of the participants, almost all the Member states had witnessed the unfolding of a paradox. The Washington Conference had emphasized the relation of educational growth to economic growth, and had looked ahead to larger national investments in education, sufficient to ensure that all children would be able to attend school through at least the first stages of secondary education. The hopes expressed ten years ago have been fulfilled in almost all the countries concerned. Investment in education, in most of these countries, has grown at approximately twice the rate of the GNP. The goal of universal enrolment in schools has been for practical purposes achieved, and the period of compulsory schooling has been extended. And during this entire period, there had also been, of course, a considerable growth of economic productivity in all the Member countries.

What the exact relationship of educational investment to economic growth is no one can yet say with assurance; only some of the cruder correlations have begun to be ascertained. Nevertheless, the impression seems justified that investment in education is a significant factor in economic progress. In this sense, the present Conference, meeting a decade later, met in an atmosphere of success.

The task now was to examine the problems of educational policy in the light of past achievements and in terms of the implications of economic growth and social changes as planned for the future. What kinds of educational system are possible and desirable in 1980, given the anticipated rate of economic growth? What do we now take to be the relation between education and economic growth? What ought to be the social priorities in the richer societies of the future and what place has education within these priorities? What resources can be tapped? What are the requirements for new educational structures? How can they be planned and what is the role of government in the administration of change?

These were the principal questions of the working sessions of the Conference. But in order to arrive at answers, it was first necessary to look at the historical record for guidance on the viability of educational systems as instruments for the attainment of both the manpower needs of advancing economies and the social aspirations of advancing societies. The evidence prepared by the OECD Secretariat included summary statistics on the growth of enrolment and expenditure on education between 1950 and 1965. Put in terms of index numbers (1950 = 100) in no OECD country did enrolments rise to less than 168 in that 15 year period, and the advance of enrolments in post-secondary education was to over 400 in Greece and Turkey and over 300 in Finland, Sweden, Yugoslavia and Canada. Public expenditure on education in 1965 as a proportion of national income rose in every country except Japan and, in 1965, ranged from 1.66% in Portugal to as much as 7.53% in the Netherlands. But riches, it is now said with increasing frequency, have to be translated into a high quality of life and distributed according to a just social order. Education enters the search for those ends at every point as part of an integrated social policy. In that sense, it was Mr. Billecocq who struck the keynote of all the discussions in pointing to the principle of "l'éducation permanente" as the only educational concept adequate to the needs of future society.

GOALS OF EDUCATIONAL POLICY

Economic "success", particularly the success measured exclusively in terms of GNP, has come to have ambiguous overtones for large sections of the populations of the countries represented in OECD. Quantitative growth has solved some problems, but it has left others untouched. Even more to the point, it has also caused new problems, or at any rate been accompanied by their appearance. For example, it has come to be widely recognized that economic growth itself creates new poverty by shifting centres of production and making old skills obsolescent. Economic growth can create communities, for instance, in the decaying inner rings of conurbations or in remote rural areas, whose inhabitants and their children are caught in a vicious cycle of poverty through lack of opportunity and motivation to join the mainstream of increasing affluence. The educationally-based poverty programmes of the 1960s and the principle of "positive discrimination" associated with the British Plowden Report* are attempts to break into this cycle which, ironically, is a peculiar vulnerability of fast growing and changing societies. More generally, a high quality of life is coming to be seen as much in terms of an acceptable pattern of distribution as in terms of a level of GNP.

There is, in any case, a rising disposition to believe that the calculation of GNP is in a number of ways misleading, since it leaves out certain considerations that reflect the actual state of human well-being, such as the distribution of resources between the public and private sectors, the degree of economic and social stratification, the character of the goods and services produced and made available, the results for the environment, and the impact of the economy on the options available to individuals and the quality of their daily lives. Nowhere is this clearer than in the domain of education, where quantitative growth has solved some problems, but has only highlighted the fact that other problems of importance remain unsolved.

EQUALITY OF EDUCATIONAL OPPORTUNITY

Perhaps the most notable problem is that of providing equality of educational opportunity. When the considerable expansion of educational facilities was envisaged a decade ago, it was more or less assumed that by making more facilities available, and distributing them properly in the right neighbourhoods and areas, there would be a marked change in the social composition of student bodies, and in the flow of people from the less-favoured classes into the secondary schools and higher educational institutions. This has not happened to the degree expected. To be sure, not all the goals of educational expansion have been reached; in a number of countries, developing an adequate supply of properly trained teachers has

* *Children and their Schools:* a report of the Advisory Committee for Education (England), 2 vols., HMSO, London, 1966.

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proved to be a particular problem. Moreover, the expansion of education has been accompanied, undeniably, by some increase in both the absolute numbers and the proportions of students from poorer families who reach the higher levels and more prestigious types of education. However, the progress towards greater equality of educational opportunity has been disappointing, and it is now plain that the problem is more difficult than had been usually supposed, and needs, in fact, to be posed in new terms.

Too much has been claimed for the power of educational systems as instruments for the wholesale reform of societies which are characteristically hierarchical in their distribution of chances in life as between races, classes, the sexes and as between metropolitan/suburban and provincial/rural populations. The typical history of educational expansion in the 1950s and 1960s for the OECD countries can be represented by a graph of inequality of attainment between the above-mentioned social categories which has shifted markedly upwards without changing its slope. In other words, relative chances have not altered materially despite expansion. No doubt, the higher norms of educational attainment have contributed something towards raising the quality of life in industrial society – that, at least, is the faith of the educationist. But in terms of relative chances of income, status and welfare at birth, the impact of the educational system on the life of children remains heavily determined by their family and class origins. From this same point of view, what appears to be happening is a general adjustment of the occupational structure such that entry to it is in process of continuous upward redefinition of educational qualification. The traditional social pattern of selection remains remarkably stable.

This general anxiety concerning the distributional goals of education echoed repeatedly in the discussions and in the comments of participants from particular countries. There was considerable assent, for example, to the proposition that too much has been expected of education by itself. The school is only one influence among others, and, in relation to the phenomenon of social stratification, probably a fairly minor one. Attitudes towards schooling, and actual performance in school, reflect the student's general social milieu and family background, and, probably most important of all, the orientation of his parents. Measures such as better counselling and guidance, the improvement of teacher/student ratios, and even the provision of more schools offering a wider variety of educational programmes, have at best a limited effect as counterweights.

There has been a tendency, a number of participants observed, to treat education as "the waste-paper basket" in dealing with social problems: when no one knows the solution to a problem, or when there is a disinclination to wrestle with it seriously, it is dubbed an "educational" problem and turned over to the schools to solve. But it is now increasingly plain that the schools cannot accomplish important social reforms such as the democratization of opportunity unless social reforms accompany the educational effort. And (although this point was not given the same emphasis) it has also become more evident that the schools are hampered in achieving even their more traditional and strictly educational purposes when, in societies changing rapidly in their technologies and in the aspirations of their populations, a comparable effort to make the required changes in social structures and political organisation is lacking.

A second consequence of the experience over the last decade in trying to bring about greater equality of educational opportunity has been a tacit change in the meaning assigned to the phrase "equality of educational opportunity". The general assent expressed at the Conference to the view that the phrase has acquired new meaning makes it possible to say that the change is now no longer merely tacit. Its earlier meaning was equality of access to education; its meaning has gradually become equality of achievement. In this interpretation, a society affords equality of educational opportunity if the proportions of people from different social, economic or ethnic categories at all levels and in all types of education are more or less the same as the proportions of these people in the population at large.

This important social-cum-educational principle, with its radical implications for both social and educational policies, was graphically illustrated by reference to the findings of the American Coleman report* comparing differences in educational attainment between Northerners and Southerners of white and non-white race. The graph below shows that schooling between ages 6 and 18 is associated with a divergence of the mean attainment of four categories of children who are not directly defined in educational terms. The radical goal of educational equality of opportunity would, if realized, produced converging as opposed to diverging lines.

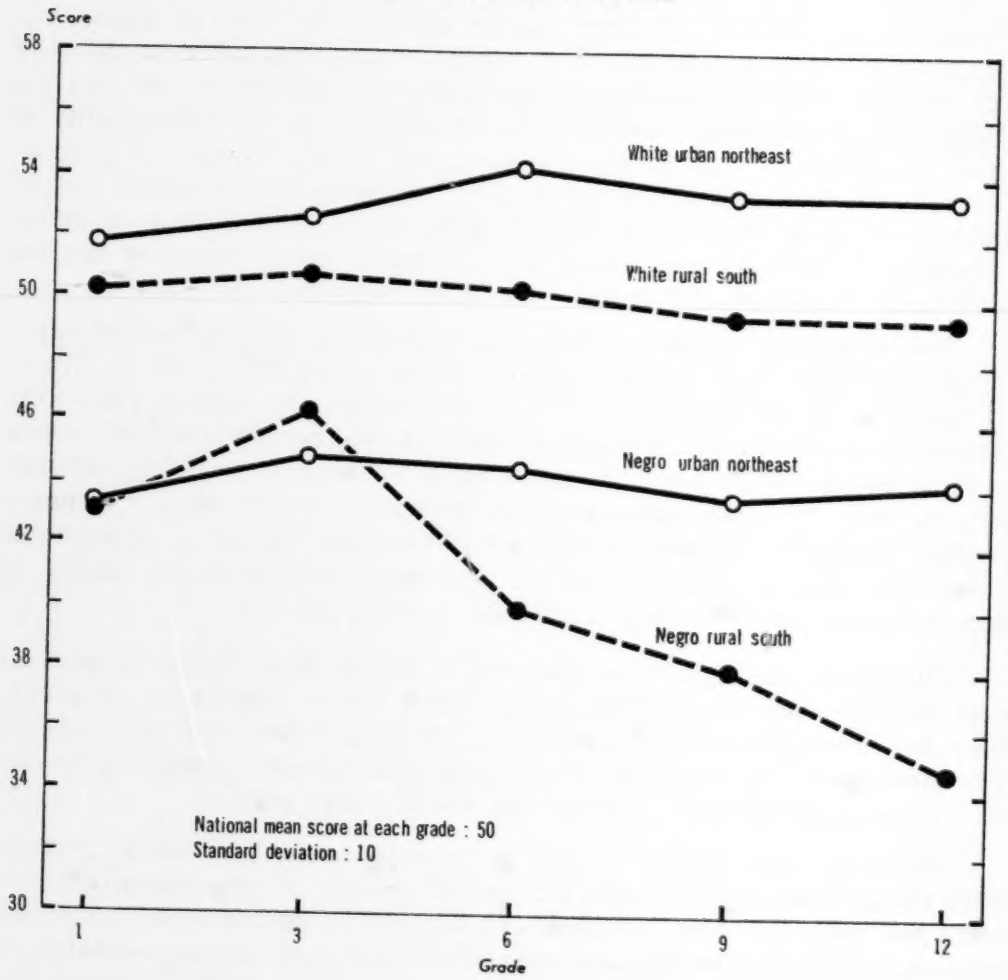
Obviously, this is not a goal which can be immediately or perhaps ever perfectly achieved. However, the much higher proportions of people from the favoured classes as against the low proportions from other classes who now reach the more advanced levels of education represented, in the view of most participants, a serious and urgent social problem.

Warnings were raised by some participants in the Conference, particularly the academic advisers, that the goal of equality of educational achievement has been somewhat unreflectively accepted by governments and public opinion, and that there are obstacles on the path even to approximating it that may be impossible and, at the least, will be costly to overcome. Improvements in teaching methods capable of raising the level of achievement of children from disadvantaged groups will also be available, for example, in teaching the children from more fortunate groups; moreover, it is likely that these groups will adopt these methods sooner and apply them more effectively. In consequence, the differences in level of achievement between the more and the less advantaged may well increase or, at best, remain constant.

A more widely held view at the Conference, however, was that the goal of equality of educational achievement, admittedly difficult, as are the tasks it imposes, nevertheless sets a direction in which national policies must try to move. The growing demand for education at all levels leaves no practical alternative, and the requirements of increasingly sophisticated economies justify an effort to produce a much larger number of highly educated people coming from all sectors of the population. In order to accomplish this purpose, new qualitative goals for education have to be set.

* James S. Coleman, *et al.*, *Equality of Educational Opportunity*, US Government Printing Office, Washington D.C., 1966.

EDUCATIONAL ATTAINMENT
BY LENGTH OF SCHOOLING



One of these is the reform of curricular and school structures. Although schools cannot, perhaps, be expected by themselves to change the distribution of educational achievement in the different classes of the population in a major way, they can make somewhat further progress towards this goal by studying the relation to educational achievement of curricula, examinations, the system for separating students into different categories, the possibilities provided for transfer from one programme to another, and similar matters. Comparatively less attention has so far been paid to these important factors affecting educational accomplishment and the social composition of school populations than to more immediately manageable factors such as counselling services, scholarships and the like. Greater individualization of instruction, greater flexibility in curricula, greater ease in moving from one programme of learning to another, and the postponement to as late a time as possible of final educational and vocational choices from which the individual cannot withdraw, were among the measures recommended. Statistical and other evidence suggests that students from the poorer classes suffer most from the rigidity and uniformity of

current structures, and are likely to have their educational chances improved by such reforms.

RECURRENT EDUCATION

A second practical proposal, to which considerable attention was given in the Conference, was for the extension of the idea and the practice of "continuing education". In the view of most of the participants, this phrase incorporates more than the notion of adult education. In involves the idea of "recurrent education" in which the traditional divisions of the life cycle between schooling and work would be reorganised to fit the emerging requirements of modern society, as well as of the aspirations of individuals. It also means more than the provision of wider and more flexible access to higher education, though here the Conference was greatly impressed by Mr. Weaver's account of the steady development of further or post-secondary education in Britain and particularly by the current development of the Open University.

That there should be more such education everyone was in agreement. But a large number of the participants went on to emphasize that "continuing education", if it is to be adequately understood in the context of the emerging requirement for it, calls for the reform of basic presuppositions, teaching styles, and educational structures within the domain of education as traditionally conceived. Education can no longer be regarded as a monopoly of the young, and the existence of programmes of advanced training only, or mainly, for the young should be reconsidered. Equally, the content of educational programmes even in the primary years should no longer be determined on the premise that schooling will stop when the student reaches a particular age. It should be determined and presented in terms of the assumption that the individual will make recurrent use of educational facilities throughout a large part of his life.

Some fears were expressed, to be sure, that this emphasis on "continuing education" might be only another "waste-basket" – a way of disposing of problems that the schools cannot or will not solve within their normal programmes. But while it was felt that these cautions were justified, it was also felt that the problems that are emerging for education in the decade ahead require that "continuing education" no longer be treated as an appendage to the normal educational system but as a central part of it. Its potentialities for promoting greater equality of educational opportunity were particularly stressed.

What in the end seemed to be emerging in the discussions of the idea of recurrent education was a view of education as a new kind of citizenship right adjusted to the realities of a rapidly changing society. The idea is of granting a claim on education to each individual which, in principle, he may choose to fit into his own life cycle and his preferences for patterns of work and recreation. The idea involves a counterweight to the domi-

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nantly selective function of current educational systems which typically results in extreme inequality in the allocation of resources between the educationally successful and the unsuccessful. In part, it is motivated too by doubts concerning the validity of selection processes in educational systems of the Western European type which rarely offer second chances in the sequence of selection. From another point of view, recurrent education embraces the idea of de-emphasizing educational selection by emphasizing the double character of the relation between the individual and the State in education. On the one hand, the State requires a certain minimum of schooling as a qualification for social membership, thus ensuring what to the economist are beneficial neighbourhood effects, i.e. raising the quality of life for all citizens. But on the other hand, the rich society can also afford further opportunity to its members to acquire its scientific and artistic culture and in recurrent education the citizenship claim would in the future not be necessarily linked to selection for occupation.

RESOURCES FOR EDUCATION

The recognition of unsolved problems, and the focusing on the new, qualitative goals that should be set for education, led naturally in this Conference to discussion of ways and means, and particularly to discussion of the financing of education. The view was expressed, from which there was little dissent, that people involved in policy-making and the administration of education are always likely to feel that they are operating close to the ceiling of what governments are prepared to make available. However, it was also the predominant view that current financial ceilings are not fixed, either politically or economically, and that the percentage of the national income that can be devoted to education can grow within limits that are not at present definable.

This is not to say, however, that there are no limits and no problems. Sharp questions were asked about both the sources and the amounts needed for further educational expansion. It was made clear, for example in the case of France, that reliance for funds has to be put overwhelmingly on central governments and therefore faces competition from other claims on the public purse. Professor Vaizey called attention to the tendencies in some countries towards privatization of educational provision and returned again to the fact that political pressure towards educational expansion financed by governments has, on the whole, resulted in unequal social distribution of opportunity. Now that the need is recognized for relative emphasis on the distribution of educational resources to the underprivileged, the flow of funds may be more difficult to maintain. Similarly, Gareth Williams emphasized that current educational plans may imply that the proportion of GNP given to education may have to rise to levels approaching 10 %. Past rises in this proportion have undoubtedly been made politically more feasible by confident belief in the high economic return to educational investment. Now the world of economists, politicians and administrators is more sceptical on this issue. Mr. Williams was himself sceptical about the

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possibility of rapid increases in educational expenditure and especially dubious, contrary to some American thought, that private financing could be relied upon for more than marginal contributions. He also expressed the widely held European view that, quite apart from the availability of private finance, only public money could be expected to ensure the pursuit of major social goals in education such as equality of opportunity.

EDUCATIONAL PLANNING AND ADMINISTRATION

Not all of those involved in the discussions were either as gloomy about private beneficence or as trustful of central governments as promoters of educational quality and equality.* In part, these differences of view stem from their differences of political and administrative history and may be illustrated by the contrast between America, where education is so heavily dependent on local property taxes, and France, where only 10 % of the funds come from the local authorities.

There was more agreement on the need for more resumed effort to determine the conditions of efficiency in education. In part, this is a matter of defining more precise educational goals to which economic and planning techniques can be carefully and appropriately applied. Professor Weisbrod was particularly insistent that hitherto rational educational administration had been hampered by ignorance of the effects of resource use, i.e. of input-output relationships. Immensely difficult technical questions of management of educational systems are involved here. These technical difficulties, combined with the recognition by the participants that planning mechanisms are at the same time structures of political power, led to a good deal of discussion of the present state of the art of planning. In the decade following the Washington Conference, there have undoubtedly been advances in the social science base of planning, but, at the same time, an increasing scepticism concerning the adequacy of this base. It is all too easily assumed that the relation between social science and educational planning is directly analogous to that between medicine and health services. In fact, the intervening variables of political interest are too little recognized. There was also discussion of the need to examine the possibilities of developing national innovation agencies in education and the changes in traditional methods of administration which would promote effective incorporation of innovation into development plans.

The political difficulty of fund raising and the urgency of clearly established aims will together challenge social scientists to produce much firmer knowledge in the field of educational planning, management and cost accounting.

* The view expressed by Professor Sĕfer of Yugoslavia should be especially noted here. See his paper on " Resources for Education ".

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CONCLUSION

The Conference divided into working groups to produce conclusions and recommendations for approval by the country delegations in plenary session.

What seemed to us to emerge most clearly from the opening and closing sessions of the Conference was a general conviction, perhaps only half-articulated, that the future of education in comparatively rich countries, like most of those associated with OECD, depends on the making of new kinds of political – indeed, moral and philosophical – choices. Scarcity provides, as it were, its own directives. It is not easy to argue against objectives like more food, better housing or health care, or job security. But the relative abundance that has been attained in the Member countries poses a new order of issues. For scarcity still exists in a sense; goals still conflict, resources cannot be devoted to all things equally, human energy and political capabilities are limited. But if choices have to be made, they now involve positive acts of preference on one side and of self-denial on the other. Educational policy-making today therefore requires decisions about the relative importance of objectives between which choices have not had to be made in the past. It may be helpful, in this context, to recognize the ambiguities even of such apparently clear ideas as "efficiency".

By "efficiency", one can mean the development of the least costly means of attaining a given, predetermined objective. But one can also mean the maximum output in relation to input, where "output" does not refer to antecedently limited goals but to factors such as talent, interest, motivation and innovation. The new era of educational planning and policy-making seems to point to this larger notion of the meaning of "efficiency" in measuring the achievement and failures of educational systems.

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OPENING ADDRESSES

1. Address by Emile van Lennep

Secretary-General of OECD

I doubt where, ten years ago, a discussion on education, in the context of a body with economic objectives such as the OECD, would have brought such distinguished delegations, many of them headed by Ministers, to the Conference table. Today, no responsible policy-maker would seriously doubt the importance of the relationship between education and economic policies. As Secretary-General of the OECD, I am convinced of the importance of this relationship and I believe that discussions on education in the context of economic and social development will have a continuing and important place in the work of OECD in coming years.

It is particularly appropriate that this Conference should take place shortly after the meeting of the Ministerial Council, when we examined the prospects of economic development for OECD countries over the present decade, and the problems which seem likely to emerge from this development, particularly in respect of the objectives of long-term economic policies.

As you know, the Council set as a collective growth objective for the decade 1970–1980 an increase in real national product in the OECD area of the order of 65 %; and this will be the framework within which Member countries will determine their economic policies. But growth, as the Ministers stressed, is not an end in itself: it is an instrument for the betterment of living conditions. Increased attention must, they emphasized, be paid to the qualitative aspects of growth, and to the formulation of policies as regards the broad economic and social choices involved in the allocation of growing resources.

Economic growth, as generally understood, is not identical with the improvement of individual and social wellbeing, though it is one of the essential conditions. Economic policy has to be related to a broad conception of social well-being which depends on a series of factors not always fully taken into economic account: security of employment, fair distribution of income, working conditions and leisure, adequate public services, harmonious social relations, health conditions and the quality of the environment. Nor must education and culture be ignored.

I myself see no conflict between the need to ensure an adequate and optimal rate of growth and output, and the need to ensure a rising level of social well-being. To provide employment for our populations, to meet the general expectation of improved standards of living, to help the poorer

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countries, and to free material and human resources for the satisfaction of social needs of an economic nature – all these call for continued and balanced growth.

But it must not be forgotten that growth creates its own problems, either because of unwanted side-effects, or because it gives rise to new needs, or, in fact, because it makes it possible to envisage objectives which would have been unthinkable a few decades ago. A striking example is education and its impressive expansion over the last few years.

Both these dimensions – let me call them for short the qualitative and quantitative – are of course of direct relevance to the problems of education. And, conversely, policies in the field of education are of great importance for a satisfactory process of economic and social development. There is, to begin with, a strictly economic aspect of education. At the first Conference on Investment in Education and Economic Growth, in Washington in 1961, when OECD began its work in the field of educational affairs, the emphasis was on stimulating the process of educational growth to meet the needs of the rapidly expanding OECD economies. This was logical, since in the early 1960s education was generally seen as providing the "human capital" needed for the economic growth – it was seen as an input to provide economic outputs. Obviously, this will continue to be *one* of the important aims of educational policy. If, however, economic growth is now seen not as an end in itself, but rather as an instrument for creating better conditions of life, the rational allocation of economic resources must also take account of all our social objectives, including those cultural and human aims which are proper to the educational system as such.

It is nevertheless incumbent on the educational system to make explicit these objectives, to strive towards ways of measuring the performance of the educational system in achieving them, and thereby to assist in the process of rational allocation of economic resources in the Member countries. This is a difficult task, but I hope that the Conference will be the first step in a continuing endeavour.

Education has been absorbing a large and growing share of the resources of Member countries. During the 1960s educational expenditure grew on average nearly twice as fast as gross national product. Its share, which is in some OECD countries already exceeding 7 % of national income, is becoming large by almost any standards. During the same period, other social needs have lagged behind and other policy objectives have been met to a much more limited extent: this has been the case, for instance, in quite a number of countries concerning housing, hospitals, public transport facilities, aid to developing countries, etc. Some of the factors of this extremely rapid growth of educational expenditure are of a non-recurring character but some are certainly much more permanent. The Conference will no doubt recognize that educational objectives have to be seen within the broader context of claims of resources and gauged against other economic and social needs.

This endeavour of the OECD to assist Member governments in the formulation of policies with respect to the broad economic and social choices involved in the allocation of growing resources, in which I hope the

educational sector will play its full part, must of course go hand-in-hand with continuing endeavours to plan and manage resources and change within the educational sector itself. I am confident that all those around this table will recognize that the process of educational growth in the 1960s was only partly the consequence of deliberate policies. In any case, the educational sector will always be one which must respond to spontaneous social forces and the changing aspirations of individuals. Yet the volume of resources now engaged is so great, and is growing so rapidly, that effective management of growth and change is becoming an important responsibility of governments in many of the Member countries. The OECD should, I believe, continue to promote co-operation between Member countries in the planning and management of educational investment and change – building on the valuable and pioneering work in past years by the OECD Committee for Scientific and Technical Personnel.

Furthermore, in facing this task in the future, we are bound to recognize that we simply do not have the answers to many of the policy problems that face us today. Education is one of the sectors of society which shapes the future. Its policies must be long-term and reflect the sort of world we wish to see many years ahead. This can only be done if education is ready to embark on substantial and imaginative schemes of research and development to explore new and forward-looking policies, programmes and institutions.

At the beginning of these brief remarks, I said that the timing of this Conference was particularly appropriate, coming as it does just after the Ministerial meeting. The timing is most appropriate too for another reason. Some months ago the Council of OECD decided that we would undertake this summer a broad review of the Organisation's work in the field of education, both from the standpoint of our policy objectives and methods, and also from the standpoint of the structure within which the work on education can be carried forward most effectively.

An important part of OECD's work on education is performed by the Centre for Educational Research and Innovation, which was initially established for a specified term of years, and whose future is now to be reviewed. Equally, the mandate of one of our major committees – the Committee for Scientific and Technical Personnel – is also due for reconsideration.

I feel sure that the results of this Conference will be of great help to all of us – in Member countries and in the Secretariat – in the process of the reassessment which we are about to undertake on OECD's role in the field of education.

2. Address by Pierre Billecocq

Secrétaire d'Etat à l'Education nationale, France

Chairman of the Conference

I greatly appreciate the privilege of being invited to take the chair at this Conference. In selecting me for this honour, I am confident that it was in deference to the links which closely bind the OECD to the country which is host to its Secretariat.

Only a few short weeks ago, I attended a meeting of the Committee for Scientific and Technical Personnel, held in this very room, to review French educational policy. This was the first time that I had occasion to measure the importance of the discussions which take place under the auspices of the OECD. The scope, thoroughness and high quality of the work accomplished for the purposes of today's Conference have but confirmed my initial impression, and I should like to extend my warmest thanks to the OECD Secretariat and to the experts for their contribution.

The impressive amount of work submitted to us for review is evidence of the care with which the various Member countries have prepared this Conference and the importance attached to it by our organisation.

We should not forget that this meeting is a sequel to that held in Washington in 1961 under the chairmanship of Mr. Philip Coombs, whom I am pleased to welcome among the experts who have been invited here, and who, as I well recall, set up the International Institute for Educational Planning in Paris which functions under the aegis of UNESCO. The memory of his relations at that time with the French specialists is still fresh, and I am sure that his thinking in this field, expressed in his book " The World Educational Crisis ", will be most useful.

The theme chosen in Washington was policies for *economic growth and investment in education*. Today, we are to consider *policies for educational growth*. This difference in titles indicates, I think, the shifting of accent in our preoccupations. It indeed emphasizes the individualization of a class of thought, the particular constraints of which could not at first be grasped when the economists and educationists, gathered in Washington, discovered not only how far the educational machinery lagged behind the economic and social development of the countries concerned, but also the special contribution that the development of the educational system could make towards growth in our societies.

This was an important step and it would be impossible to underestimate its significance. To conclude that education was as important an investment as outlays for capital goods, and was an indispensable requirement for growth, at that time meant an entirely new departure, one which during the past decade has radically affected the life of our countries.

One of the main objectives at this period was thus to remove the barriers to economic growth, the most notable of which was the shortage of qualified personnel; and this was why the OECD committee responsible for educational affairs was originally named the "Committee for Scientific and Technical Personnel".

If in broad terms we try to outline the situation with which we are faced today, we see a profound difference.

On the one hand, educational growth has been such that one can no longer speak generally of a shortage of qualified personnel. On the other hand, considerable gaps still exist between the skills provided by the educational systems in our economies, and social and economic needs. Moreover, all the reports received emphasize the very rapid growth of educational systems; but this has not led, as we had hoped, to the same level of progress in the equalization of educational opportunity, which the Washington Conference thought must be the automatic outcome of increased enrolment.

Finally, the growth rate of educational expenditure in all our countries has been considerably faster than that of gross national product, and in many countries twice as fast. This growth of public expenditure on education had been made possible both by the high rate of economic growth in the different countries concerned and by the decline of other expenditure, particularly military expenditure.

All the documents received deal with the now foreseeable limits to this growth of the resources available for educational systems. While the projection of present trends suggests that a number of OECD countries will be allocating more than 10 % of their GNP to education by 1980, this could be achieved only by increasing taxation, that is, by more heavily reducing private expenditure or by cutting down on other items in the budget such as health, transport, etc., and which are also services demanded by society.

Briefly, the rapid growth which has marked the ten years from 1960 to 1970 has not enabled the attainment of the objectives which had seemed to justify it. As an example, all I need mention is the failure to integrate into working life the skills produced by the educational system.

It is clear, moreover, that this growth cannot continue along the path blazed by earlier efforts – education must be realigned with the major services that communities expect to be developed. And this situation poses the problem of policy choices.

To my mind, these facts do not challenge the sort of thinking which caused the dialectical relationships between education and the economy to be analysed and explained, nor the concept of planning which seemed to emerge as a likely method for using such relationships in forecasting the resources to be applied.

But we must note the unanimity of the preliminary reports submitted by the Secretariat, stressing that the growth of educational systems from 1960 to 1970 was an unsystematic rather than a planned process, a response to social demand rather than an adjustment to the needs of the various branches of the economy. This is undoubtedly because as the function of

planning evolved we neglected to alter its role in government machinery and the scope of its action.

I will briefly describe how French planning has changed. At first the idea was simply to plan for capital investment, but studies were progressively extended into other fields, with the result that all aspects of the functioning of the educational system are now tackled. As noted in the Preliminary Report by the Education Commission for the VIth Plan, "the concept of planning school and university facilities must be substituted by one of planning the public service *education*".

In other words, following the integration of education into general economic development, we are now urged to consider how it dovetails with overall policy in our countries. This concept of planning first calls for the formulation of objectives, then, in terms of these objectives, for the definition of programmes incorporating integrated sets of measures for achieving them.

In reality, an understanding must be reached on the concept of educational objectives. Any system naturally tends towards improvement along the course already set by the circumstances which led to its creation. In this sense, educational planning is a constant search for the internal equilibrium of the system, one repeatedly upset by rapid growth, and its active role is limited to the planning of how to restore the balance in view of budgetary arbitration of a policy nature.

Paradoxically, therefore, planning of this sort is conservative since it can aim only at strengthening the coherence of a system developing within its own shell. Unless the shell is broken, any approach from inside – for example, one based on the manpower requirements of the economy – cannot really become a component part of the overall structure. We have thus seen in France that estimates of the numbers of art students and science students have fallen very wide of the mark.

True, changes can be made by resorting to administrative measures which planning then takes into account on a par with other data. But the shortcomings of a situation in which virtually separate use is made of these two major instruments of global policy must be apparent to everyone.

These findings have led us to introduce profound changes into the decision-making process, and, I am glad to say, along lines which seem to me to be fairly close to those proposed for consideration today.

Policy-making, forecasting and innovation are three ways of preparing the future; they must be complementary and co-ordinated before it is possible to formulate the educational goals which form the main choices attached to the end objectives of society, in the broadest sense of the term.

The first task is to define these end objectives; it is on the basis of these that the goals will be set which planning must translate into terms of operations.

It is for this reason that, under the recent reorganisation of the Ministry of Education, two levels are distinguished: the definition of objectives, and the means used to achieved them; plus an instrument for constantly confronting the two which we have called the "forecasting

department". This is why research, the source of innovation, must be ranked at the level of objectives.

The respective roles of overall policy decisions and of their translation into operational terms can thus be redefined.

Conversely, however, this will unquestionably call for a more thorough approach and a more scientific analysis of documentation which has been compiled and kept up to date while making sure that all aspects of the problems are studied.

Educational management certainly does not have the scientific machinery which would allow it to propose to those responsible for making the choice carefully calculated components of possible solutions.

The mathematical models used are still too general. Experience has shown – and it is unnecessary to revert to the subject – that they do not take into account the daily problems with which the government department responsible for putting projects into effect has to contend. True, it is important to have a sound knowledge of the demographic situation, but how is it possible to assess what I shall term "enrolment practices" which determine the response of teaching staff and of those who enter the schools and universities?

Our statistical machinery for using these models, it may be added, often expresses only an external aspect of reality. The same may also be said for the manpower forecasts at our disposal which, in a period of rapid technical change, seem particularly difficult to pin down and translate into elements of reflection and decision.

I shall not dwell further on the need for the strengthening in the theoretical field, of the entire system of collating and preparing statistics in order to draw up the school and university map of a country and of its regions. But this is a fundamental problem and, moreover, one which lies, I believe, at the root of the work proposed under item 2 and especially item 4 of your Agenda.

When preparing the VIth Plan we tried to find an answer to this problem by working out a matrix which, though simplified and incomplete, might be used to prepare a permanent instrument of ministerial control, forecasting and even management; one which would call for modern methods, and which we believe to be a prerequisite for rational planning and integrated programming.

A precise approach seems to me all the more necessary as nearly all the findings emerging from the preparatory work for this Conference point to the search for a solution by means of continuing education. Preparations for the VIth Plan also show this to be an essential adjunct to all the activities we plan to undertake. The keeping up, developing and perfecting of knowledge acquired during initial training completes the social task of education and enables it to carry out its part in an economic society where no one can find his place without adjusting to the technical advances necessary.

This prospect implies a change, the effects of which must be weighed. Perhaps it will allow us to discover the best ways of combining means to allow us to achieve more surely the objectives of a policy to which national

education and teaching make an important contribution but which must be planned and implemented within a much broader framework.

You will all understand, I am sure, that my intention is not to vaunt the merits of French thinking on the subject. To do so would be most pretentious on my part for these new concepts have only just begun to be applied and cannot therefore be judged by their results.

Nor do I deny that much remains to be done, particularly in the matter of integrating innovation into the process of educational growth. But I thought it would be simplest, when starting the discussion, to describe how, within the framework outlined by the Secretariat, the problems we shall be discussing here are tackled in France, and thus stimulate discussion. You may rest assured that we shall take all the more notice of the experience of others, of results already achieved, and of still-hesitant attempts.

If I have dwelt at some length on the mechanism which should enable a policy for education to be better formulated and more efficiently applied, this must be excused as a natural reaction on the part of a government official responsible for education, one who believes that planning and the interaction of structures are the prerequisites for any action in depth.

But I must not forget to mention the role we want to assign to education, which is, in short, what Mr. Olivier Guichard called at the Hague one of "a European model for culture".

Everything points to the need for an overall redefinition of education: the evolution of science and technology, policy changes, economic development, correlative changes in our society, as well as educational growth itself. But it would indeed be naive to expect that our reflections can result in any clear-cut, comprehensive mandate defining a closed system of goals, even for a relatively brief period. This would be to deny the process of change, so often stressed as being characteristic of our times.

Instead, we should seek rather to organise the process of continued change and, for that purpose, a methodology based on a few main guidelines now becoming clear, the main one possibly being the concept of continuing education.

This is proof enough of the importance of this Conference. I am quite sure that it will mark an essential stage – as did the Washington Conference nine years ago – of our changing attitude to problems; and I believe that, by organising such a meeting, OECD has rendered the Member countries a service for which we should once again express our appreciation.

AN OVERVIEW OF PAST TRENDS AND FUTURE ISSUES

by

J.R. Gass

Director, Centre for Educational Research and Innovation,
Deputy Director for Scientific Affairs, OECD

Two main debates followed the Washington Conference on Economic Growth and Investment in Education:

- a conflict between the advocates of a quantitative approach to the problems of educational growth and those who favoured a slower rate of growth in the interests of qualitative improvement; and
- a controversy between those favouring an economic analysis of the need for growth and those holding that policies for educational growth should respond to individual and social demand.

The Educational Growth Review undertaken by the Secretariat in preparation for the Paris Conference establishes clearly that both these debates are outdated by events. A somewhat "runaway" process of educational growth has reached levels where economic demand alone can no longer be the justification. Yet the structure of skills and qualifications resulting from the individual and social educational choices of the 1960s is increasingly out of balance with the "needs" of society and the economy. The problem is thus no longer how to generate the growth process (which was a consequence of educational systems lagging behind the rapidly recovering economies of the Member countries in the post-World War II period), but how to harness and control educational growth more effectively to the new qualitative goals which it is to serve.

This must be seen as part of a wider debate concerning economic and social goals in the OECD countries in general. The framework is provided by the discussion, which was initiated at the 1969 OECD Ministerial Council and was again taken up by the Ministerial Council in May 1970, on the objectives of economic growth, with emphasis on the concept of the "quality of life".

The Scale, Structure and Problems of Educational Growth in the 1960s

There is a temptation, when goals are discussed, to project the mind towards a distant and freer future. Whether we like it or not, the freedom

to move towards long-term objectives is circumscribed by the consequences of past policies. Effective freedom is conditioned by our ability to de[illegible]e the real options which past policies leave open. This is why the Secretariat is presenting to the Conference a detailed analysis of the past process of educational growth.

The broad conclusions of this analysis are:

1. The growth of enrolments in the OECD countries during the period 1950–1965 was 32 % for primary education, 87 % for secondary education and 150 % for higher education (Background Report No. 1). In terms of absolute numbers, primary education rose from 72.6 to 95.9 million, secondary education from 24.4 to 45.6 million, and higher education from 3.9 to 9.8 million.* These levels and rates of growth were approximately those foreseen at the Washington Conference, although somewhat higher for higher education.**

	Primary	Secondary	Primary and secondary	Tertiary	Total
	As a percentage of population:				
	5–14	10–19	5–19	20–24	5–24
Developing Member countries					
1950	49	6.7	37	2.4	29
1965	58	17	53	7.4	44
Other Member countries					
1950	80	30	74	9.6	58
1965	81	42	82	21	69
All 23 Member countries					
1950	75	26	67	8.4	53
1965	77	38	77	19	65

2. From the above it will be seen that the broad structure of growth had two principal features:

a) biggest absolute growth in terms of numbers in primary (because of demographic trends) and secondary education (because of democratization), and

b) highest rate of growth in higher education.

* Cf. Tables I, II, III.

** Policy Conference on Economic Growth and Investment in Education, Part II, Chapter III, Appendix II, Tables 1 and 3, OECD, Paris, 1965.

3. However, the percentage of the age-group enrolled in education shows marked differences as between the developing Member countries and the rest.

4. These features of past growth will to a significant extent determine the patterns of future growth:

a) in the advanced Member countries the quantitative growth of primary and secondary education is bound to slow down because of both demographic trends and the high percentage of the age group now enrolled;

b) the democratization of secondary education in these countries in the 1960s will give rise to an increasing social demand for higher education in the 1970s, and one of the major problems of policy in the future will be how to respond both to this and to the expansion of adult education;

c) in the developing Member countries the growth of secondary education will continue to make a major claim on resources, but economic development will at the same time call for a high rate of growth in higher education.

5. The process of educational growth has resulted in an annual growth rate for educational expenditure which is nearly twice as large as that for national income (between 1.5 and 2 in all OECD countries and extrapolations of educational expenditure and national income growth to 1980 lead to the conclusion that if present trends continue 10 % of national income will be devoted to education in eight OECD countries, 5–10 % in seven countries, and under 5 % in five countries (Background Report No. 2). The problems of financing education are in consequence likely to be considerable in the 1970s.

6. The output of qualified people from OECD educational systems as part of such rapid growth has been adequate in global economic terms, but there are growing structural problems arising from a mismatch between the labour market and educational output of school leavers and graduates.

7. Indeed, the main driving force behind growth has been social demand and democratization rather than adjustment to the needs of the labour market, and it is therefore important to note that education has only very partially succeeded in increasing equality of educational opportunity (Background Reports No. 4 and No. 10) or equality of income distribution (Background Report No. 11).

8. A consequence is that in the 1970s the accent will be on the major structural and qualitative changes needed to make education more effective in terms of economic, social and individual goals (Background Report No. 6).

9. In planning for such changes it must be frankly recognized that the growth of the 1960s was a runaway rather than a planned process (Background Reports No. 5 and No. 8), and that new planning approaches and methods will be needed if growth is to be made responsive to policy (Background Reports No. 9 and No. 12).

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A. NEW GOALS FOR EDUCATION
(see also Discussion Paper No. I)

It will not be possible for policy to dominate the problems of educational growth unless policy objectives can be made more explicit. Resources are not infinite and choices are imposed by the variety of patterns now open to future development. The alternatives cannot be seen unless goals are made explicit.

This is a daunting task for policy and planning in education. Educational objectives are difficult to define and even more difficult to quantify. In some countries, education is conceived as responding to the wishes and aspirations of the individual, of families, and of communities more than to those of the nation.

There are thus two questions:

- what goals?
- whose goals?

Changes in Goals in the 1970s

Broadly speaking we may say that two viewpoints on the overall objectives of educational growth dominated the scene in the 1960s:

i) that education should be provided for everybody to the highest level he demands, and for which he is qualified, and

ii) that a rapid expansion of the educational system was justified to provide the necessary manpower for expanding economies.

The principle expressed in the latter viewpoint is still an important objective in the developing Member countries,* but in general the social justification for growth is becoming more important as income and educational levels attain new heights. Indeed, the greater attention being given to the social objectives of education in national policy-making should be seen as part of a general re-emphasis on social objectives in the allocation of economic resources in the OECD countries. But in this connection education has to compete with other social objectives such as health, housing, transportation and improvements in the natural and urban environment.

In these circumstances it is important that the objectives of education should be clarified as a guide to efficient resource allocation and utilization.

Equity. There can be little doubt that the goal of equality of opportunity was the main driving force in the educational growth of the 1960s, and there are already signs that the idea of a common educational experience for all children is moving from the secondary level to the lower levels of higher education in the most advanced countries. In the 1970s, however, this objective seems bound to be reinterpreted in a number of significant ways:

* See "Special Problems of the Developing Member Countries", OECD Document (STP(70)23).

The relative failure of educational systems in achieving equality of opportunity is leading to recognition that equality is dependent on the quality of the system, and in particular on its ability to provide equality of achievement. This implies a more explicit and realistic assessment of the costs as well as the benefits of alternative policies for achieving equality. Including recognition of the dependence of educational policies on other governmental policies to achieve the goal of "equal chances" for individuals. And the fact that the development of a "generation gap" in educational opportunity will necessitate choices between resources for adult education as compared with youth education. The fundamental issue may be that the educational system can provide equity only if a major change is made in the relation of education to work, via the concept of "recurrent education".

Efficiency. The debates of the 1960s opposed quantity and quality on the one hand, equity and efficiency on the other. These conflicts are in fact a consequence of the idea that economic growth is an end in itself. Within this framework an "efficient" educational system is seen as one which improves personal or national income. If, in the 1970s, economic growth is looked upon as a means to a wider range of economic and social objectives, the efficiency of the educational system will refer to a wider range of objectives. The restatement of the problem will be: how can education use resources so as to be effective in achieving whatever goals society sets for it? (see Section B below).

Socialization. Education is par excellence an institution which is on the bridge between the individual and society. The rapid economic growth, technological advance and social change of the past three decades have transformed the relationship between the individual and society and, to a significant degree, have torn down the national, class, professional, ideological and religious supports which provided the social framework for the individual. Student protest may be seen as one of the responses to this new situation. If the educational system is to succeed in relating the child and the young person to his society, then the curriculum, teaching methods and the relationship of the school to the outside world must be changed to cope with the new realities. The ability of individuals to find a constructive role in society will be more dependent than in the past on the self consciousness and understanding which education can provide, on better knowledge and understanding of the choices faced by society, and in a certain sense on a "critical" view of society (which may be defined as a sense of freedom from "blind" social forces). In other words, the socializing role of education is dependent on individualization – social cohesion and the autonomy of the individual are inseparable. Such a new approach to socialization would have fundamental implications for the curriculum and methods of teaching.

Individual Development. Individual development may be seen as the central integrating goal for education in modern, democratic societies. All other goals find their specific meaning in relation to it. *Equity*, for example, must respect the reality that the creative development of individuals takes place in the workplace as well as the school, and access to education to achieve adult as well as youth aspirations will thus become increasingly

important. The opposition between economic efficiency and the development of the individual is too simple-minded in a society where individuals without qualifications are social casualties. *Socialization*, as we have seen above, cannot be achieved in modern conditions of rapid change without self-conscious and socially creative individuals. Moreover, an educational system which fails as a learning process for the individual will fail whatever the priority it gives to the other objectives.

The most challenging question therefore is whether education can create and respond to new patterns and models of individual development, without which the orientation to social and economic goals will continue to generate social discontent and individual frustration. Educational structures, curricula and teaching methods must respond to these new models of creative individual development. The links between education, work and leisure that they imply are likely to be a central issue in the policy-making of the 1970s.

Whose Goals?

The above discussion of goals makes it clear that any statement of educational goals is bound to deal with values about which there may be a lack of social census, or values which are meaningful only when translated into action in the schools by those involved in the schools. Thus, the necessity of making goals more explicit cannot be expressed simply in the form of targets for national policy – but have to be reflected in processes which reach into the school and local community.

It is probably for these reasons that the replies from Member countries to the questions concerning policy goals generally take one of two forms:

1. Quantitative, global targets concerning enrolments, teacher supply and finance; or

2. *Specific* policy measures which are usually not "operationalized" in terms of the resources to achieve them.

These problems are taken up in Discussion Paper No. 1, which is based on several broad assumptions:

i) that qualitative goals for education can be meaningful only if related to "alternative futures", i.e. choice between one constellation of values or the other. This paper (drawing on Background Study No. 12) implies that there is the choice between the values implicit in "post-industrial society" and those implicit in "person-centred society";

ii) that particular goals which will be leading goals, or derived from the main value choices, according to the choice between such sets of values.

If, however, the process of making goals explicit is more likely to reveal the different sets of values to which different groups in society would give priority, the idea of a social choice between one constellation of values as opposed to another is problematic. Further, it is questionable whether the notion of a hierarchy of goals is operationally useful, since different social groups will obviously order their priorities differently.

It is for these reasons that the question of "whose goals" is as important as "what goals", and that the process of public discussion through

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which goals are identified is as important as the technocratic process through which they may be "operationalized". In sum, it is a question of how the democratic process can function in relation to such choices.

In order to get to grips with this problem, it is necessary to make a distinction between those goals which call for general political decisions about the allocation of resources, and those which, on the contrary, are a reflection of values which cannot be reflected in such political decisions.

For example, equity and economic efficiency can be realized only through general political decisions about the allocation of resources in relation to objectives, and the process for determining such goals is bound to be the normal political process. Even so, it must be recognized that neither can be successfully attained unless translated into the specifics of school practice, and there is in consequence a major problem of involving teachers, parents and students, as such, in the definition of goals and their translation into action.

The goals of socialization and individual development, on the other hand, are fundamentally concerned with the curricula and teaching methods. The implicit values behind them are those of the society at large, but the political process as such cannot do more than provide "guidelines. In this area, therefore, the formulation of explicit goals depends on the creative participation of teachers, parents, children and students in the framework of their local communities, schools and universities.

In sum, the question of "whose goals" can be answered only by a process which includes two main features:

i) the normal political process with explicit machinery for translating the allocation of resources into action and change in the schools;

ii) the "grass roots" process whereby general social values about educational content and method are materialized by a process of participation in which teacher-parents and children are involved (see Section D below).

B. THE EFFICIENT ALLOCATION AND USE OF EDUCATIONAL RESOURCES

(*see also Discussion Paper No. 2*)

There is an interaction between goals and resources which is self-evident, even if often overlooked. To pursue objectives which are incompatible with the resources available is to mis-allocate or waste resources: for some observers, the central problem of the rapid educational growth of the past two decades has been that expansion has been too ambitious for the available financial and real resources (and in particular teachers) – hence the central conflict between the protagonists of growth and the defenders of quality. This is a somewhat empty debate unless we can get to grips with what we mean by "quality", and it is precisely for this reason that the discussion of goals is becoming more important.

Slower Growth in the Interests of Quality?

Inevitably the first question is bound to be: where does the limit to expenditure in education lie?

There is no simple answer to this question. Table IV shows the varying percentages of GNP and public budget which Member countries now allocate to education. This at least shows that the question is one of objectives on the one hand and economic levels on the other, rather than of some mysterious ceiling beyond which no further progress can be made. It is a question of policy and politics.

The developing Member countries, for example, may expect to approach the levels of the other Member countries as their economic level rises. As Background Report No. 13* indicates, these countries are still in a situation where the economic demand for education in terms of skills is still a force behind expansion. The wide variations between advanced Member countries make it clear that the question is one of priorities in the allocation of resources, and in a few cases a consequence of a slow rate of economic growth. In general, the Educational Growth Review, and in particular the projections of enrolments and expenditures in Background Reports No. 1 and No. 2, tend to show that if a problem exists it is the limitation on public financing rather than on total volume of resources in the educational sector. And even the constraints on the public budget do not seem likely to be a crucial obstacle to foreseen educational growth, except in countries with a slow rate of economic growth.

The real problem in fact seems to lie in the realization that growth and costly qualitative changes must now go hand in hand. We simply do not know what qualitative changes to promote because goals have not been made sufficiently explicit, nor do we know how to be effective in pursuing these goals because our knowledge of the relationships between inputs and educational outputs is meagre (cf. the American debate about education for socially disadvantaged children). Is it not this simple truth which lies behind the emerging conviction that if growth and quality are to go hand in hand, education will have to invest much more effort in development, in the effective diffusion of innovations throughout the system, and in the creation of a professionalized, and therefore more highly remunerated, teaching force which accepts responsibility for the continuing search for educational effectiveness?

In other words, a ceiling to educational growth is most likely to be the consequence of a failure to promote the continuing improvements in the efficiency with which resources are used. Such continuing gains in efficiency are always concomitant with sectors of the economy and of society which continue to grow.

The question of the role and function of the teaching profession is a crucial one (see Background Report No. 3). Growth, technological change, and professionalization go hand-in-hand, and there is no reason to believe that the educational sector is an exception. Even such social sectors as medicine follow the same path. Thus, the rising efficiency of the educational

* Not published. See OECD Document (STP(70)23) "Special Problems of the Developing Member Countries".

system based on new methods of teaching and organisational concepts is one side of a coin. The other is the professionalization and rising status of teachers. The slogan of "teachers as managers" is not an empty one.

Effectiveness and Efficiency in Education

It is this situation which accounts for the growing demands for "productivity", "competition" and "management" in education, and the emergence of something which looks very much like productivity bargaining between teacher organisations and employing authorities in the educational sector. Such demands are usually seen as in conflict with the real purposes of education: as mentioned above, quality and efficiency as seen as cat and dog. But this is a consequence of the erroneous view which sees quantitative "growth" and "output" as a measure of efficiency, and quality in terms of more expensive inputs. The quality of education must in the future be seen as an output which reflects the achievement of goals in terms of all the complexities with which society defines them. Effectiveness and efficiency must be measured against qualitative as well as quantitative objectives. Is it impossible that greater efficiency in this sense will go hand-in-hand with lower costs and higher quality?

The first need is to clarify the basis of the discussion. There are three paths to greater educational efficiency:

1. More effective allocation of resources in relation to goals;
2. Technological efficiency, i.e. new ways of combining resources to achieve more effective teaching-learning processes;
3. Managerial efficiency, i.e. more efficient ways of using resources within the framework of existing technologies.

Effective Allocation of Resources. The possibility of developing new policy/planning methods which enable resources to be allocated more efficiently in relation to qualitative and quantitative goals is at stake here. This is the challenge for so-called "second generation" educational planning (see Introductory Chapter by the Secretariat to Background Report No. 12, Background Report No. 9, and Discussion Paper No. 5). Apart from all other developments reviewed in these papers, not much progress can be made unless:

a) Educational statistics come to grips with the problem of quantitative and qualitative outputs from the system, including the development of indicators which reflect educational contributions to wider individual and social objectives.

b) Great improvements in data on unit costs in all levels of the system take place.

Without such improved information, more refined techniques of policy/planning will make little headway in practical terms.

In theory, at least, there is an alternative to more efficient allocation of resources via better policy and planning, namely to introduce competition into the educational system by enabling parents to choose institutions in accordance with their own assessment of their effectiveness. This is the sense of the so-called "voucher" system, whereby families would be given vouchers with which they could "shop" for education. It is also

implicit in the idea that, after a period of compulsory education, young people could be given "credits" for a certain period of post-secondary education which could be used throughout their working career.

Technological Efficiency. The key to cost/effectiveness at the establishment level lies, of course, in the cost and performance of teachers, since teachers' salaries are the dominant item in educational costs, and teachers are the principal determinant of effectiveness. The fact that the educational system absorbs such a high proportion of its own output in terms of teachers, probably means that in one sense or another educational systems are likely to become more "capital intensive". The idea of more "capital intensive" education has indeed been pursued through the notion of new "educational technologies" (Background Report No. 7), and institutions to promote such technologies are beginning to exist in many countries. Private industry is also making considerable investment in the market for new teaching/learning systems.

It is therefore somewhat disturbing that work by CERI on this subject should corroborate other indications that the considerable hopes for using educational technology in the educational systems of Member countries have, by and large, not been realized. Technological approaches to education which seem to offer considerable potential benefits have been frustrated by the difficulty of effectively integrating new "hardware" into the teaching process. However, the key to this failure probably lies in the somewhat naive expectation that new technology can result in effective innovation without a real "development" process. In industry, medicine and defence, it is now becoming fully recognized that the costs of turning a potentially valuable technology into an effective innovation may be much greater than the costs of developing the technology itself. Further, there is now a widespread switch towards a concept of science and technology which recognizes that "systems development" is needed if new technologies are to be effective in social and economic terms. Indeed, one might go as far as to say that the distinction between "social innovation" and "technological innovation" is breaking down and is being replaced by a recognition that innovation depends on the effective development of new systems which include the technological, social and economic components of the desired change. This is precisely what is happening in the field of educational technology.

The implications of such a trend for education are that it will be necessary for Member countries to establish new functions in the educational system with the necessary institutional and manpower base to promote the integrated development of new teaching/learning systems. This will be a costly process as it is in other fields, and will necessitate an examination of the possibilities of international co-operation so as to diminish development costs (cf. the potential role of CERI).

There are two serious difficulties to be faced in filling this gap in the educational process. First, most new teaching/learning systems appear, at least initially, to lead to higher costs, even if they are more effective. Governments may therefore be faced with the alternative of accelerating educational growth without qualitative improvements, or slowing down growth so that adequate investments in long-term cost/efficiency can be

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made. This is of course a well-known problem of development strategy in many fields. Second, one of the risks in educational development work is the possible impairment of the child's effective learning. A policy for spreading development work throughout the system, and possibly for international co-operation, should be set up to minimize such social costs in individual countries.

Management Efficiency. Whatever the goals of education, and whatever the technological basis, more effective management of resources is an absolute necessity. If it is recognized that the purpose of good management is to achieve objectives and not only to save resources, there is no reason why management should be seen as conflicting with the "real" goals of education. Indeed, the most beneficial effect of the introduction of such management systems as PPBS is often the strengthening of the definition and the understanding of the goals of the system. There can be little doubt that such systems are destined to play a growing part in the management of educational resources in the future.

Likewise, country replies to the Educational Growth Enquiry show there are ways in which educational resources can be saved by better management. Is it really justifiable to defend lengthy courses of higher education which have flimsy relevance to any purpose, on the grounds that the quality of education is at stake? Is the power struggle between faculties the rational way of dividing resources among academic fields in the university? Should not school and university facilities be used by the community at large in the same way as are the church and the town hall?

While the answers to these questions are fairly obvious, the management of schools and universities is not the same as management in industry, defence and government. Management science and its techniques are weak when it comes to institutions where the "product" is individual and intellectual creativity, and it would be a mistake passively to await the inevitable invasion of management organisations and techniques into the school and the university. On the other hand, this is surely what is happening in the absence of initiative from the educational sector itself. Has not the time come to promote a management movement in education itself? Should not the universities themselves be given support to develop their own body of organisational theory and management technique?

New Methods of Financing?

There is a relationship between methods of financing education and the goals it is to serve, and the efficiency with which it uses resources. In its extreme form, the debate is between those who argue that the only way to have an efficient educational sector is to allow the individual to act as a private consumer. The counter to this is that such an approach would destroy education as an instrument of equality in society, since educational opportunity would reflect the existing income structure and therefore perpetuate social class differences.

This debate will sharpen if, as seems likely, the growth in social demand for education and other social services in affluent societies continues to be faster than the growth in public spending. New relationships between

the growth in private incomes, demand for services, and public financing may be needed if a serious crisis in educational expansion is to be avoided. To put it simply, an answer has to be sought to the "private affluence/ public squalor" critique of modern industrialized societies.

The answer to this question lies outside the field of educational policy. The problem is one of allocating national product between public and private consumption, and between the various sectors of public consumption. The Conference will, however, wish to take note of the fact that such questions are being taken up within the OECD framework as part of the discussion on the qualitative aspects of policies for economic growth.

The real question in terms of educational policy will be: where should new methods of financing be brought into play if the public budget falls behind social demand for education? How can the inflow of private funds to education be controlled so as to promote rather than frustrate the goals of education?

The dominant role of public expenditure in the field of education is justified by the general concept that education is an equalizing institution in society, since equality of opportunity for all social classes permits able individuals of whatever social background to rise in the social structure. However, if (as the Secretariat's analysis appears to show – Background Reports No. 4, No. 10 and No. 11) education is succeeding only partially in this process, then there will be increasing pressure to allocate educational resources in such a way that the possibilities of educational achievement of disadvantaged social groups are correspondingly improved.

We are therefore likely to see growing pressure in favour of the idea that in primary and secondary education resources should be allocated differentially to enable poorer children to be more effective in the later stages of the educational process. A corollary to this may be an increasing questioning of the general provision by society of resources for higher education, which may be looked upon increasingly as leading to a high economic return to the individual, and biased in favour of the upper socio-economic groups (see Technical Reports related to Background Report No. 11). New concepts of financing higher education, with a different relationship between public and private spending, are therefore likely to emerge. This will be particularly true if higher education is made more accessible to adults than in the past.

A scheme for the private financing of higher education that would not discourage students from poor families may be difficult to devise, but if health provisions, pensions and housing can be based on private payments and inversely related to income, why not education?

C. POLICIES FOR STRUCTURAL CHANGE
(see also Discussion Paper No. 3)

Historically, structural changes in the educational system have been achieved through legislative reforms with the main purpose of expanding

the educational system to new groups in the population. A series of accretions have produced the "system" – with various entry points to institutions and various outlets to society. In consequence, structural changes have been dominated by quantitative growth rather than qualitative achievement, and by selective channels rather than coherent educational paths for the individual.

Today, structural change begins to serve other purposes in educational policy, and accordingly needs to be viewed differently. In a mass education system dominated by the goal of equal opportunity, the selective role of the educational system is challenged by new approaches to opportunities for the individual. The system also begins to be seen in terms of its total interaction with society – the problem is no longer to "extend" the system to new groups of children, but a modification of the overall relations between the individual, the economy and the educational system (e.g. "recurrent education"). Such new needs cannot be met by structural changes wished by the legislative wand – they must be part of a process of "change in depth" which involves parallel pedagogical and curricula changes, which can be accomplished only over long periods of time.

The consequence is that policy for structural change must be viewed in a new light. It is no longer the instrument of reform "par excellence", but one of the instruments of educational policy with its own advantages and drawbacks.

Stages of Educational Development

It is in the area of structural change that the notion of an educational system passing through various stages of development linked with the level of social and economic development is most justified. Discussion Paper No. 3 points out the striking degree to which the problems of structural change can be identified by reference to the past pattern of growth in the Member countries.

Such an analysis enables the identification of the common problems of structural change, as set out in the conclusion of the paper, namely:

i) the development of pre-school education, for which clear objectives have yet to be established; the overriding educational consideration being the importance of professionally-guided growth in these critical years of child development;

ii) the application, at primary and lower secondary levels, of pedagogical differentiation within a growing period of common educational experience, as a means by which the recently-introduced structural changes, including the comprehensive school, can be made effective;

iii) the re-organisation of upper secondary education, which will probably be the crucial issue, as it will shape the whole of the post-secondary sector and affect the functioning of the entire educational system. The logic of structural development points towards a comprehensive system of post-compulsory education, based on a modular structure of transferable credits and a flexible division of labour between various institutions. Within such a system, the feasibility, costs

and benefits of the applications of the concept of "recurrent" education, as a major breakthrough in educational strategy, deserve close study.

At the same time this notion of "stages of development" is a warning against the too rapid conclusion that all Member countries will share the same problems in the coming years. The conclusions of the paper do not apply with equal force to the developing Member countries where further steps to consolidate primary education, and major steps to generalize secondary education, will be necessary in the coming years. This is why the Secretariat has made a special analysis of the problems of growth in these countries.*

The structural problems of the European Member countries, which have not yet moved to a mass system of higher education, are somewhat different from those who have, e.g. the United States, Canada and Japan. In the United States for example, post-graduate education shows all the signs of becoming a generalized part of the educational structure with special problems of its own.

Nevertheless, within these differences, it is striking how the experience and problems of one country or group of countries are echoed in others, and the area of policies for structural change is certainly one in which international co-operation will be most rewarding in the years to come.

The Individual, the System and Society

The literature of comparative education is replete with tortuous charts and diagrams, the purpose of which is to show the relationship between the various institutions in the system. If, as is suggested in the section of this paper on New Goals for Education, the coherence and development of individual lives should be the unifying concept, then the central question will not be "does the system make sense as a pattern of institutions?", but "does it permit and promote the fulfiment of the individual?".

The answer to this question will certainly challenge existing notions of the selective role of the educational system, and the problem of selection will emerge as a dominant issue in relation to structural policies. The answer will probably be to combine selection – which is inevitable – with much more explicit arrangements for transfer from one educational route to another, and for an abandonment of the twin notions that education is the monopoly of youth and that selection is in consequence irreversible.

If educational structures are to serve individual development, entirely new structures for relating education to work are bound to emerge. The notion of educational structures which are based on an ever-lengthening period of continuous education cannot possibly survive an analysis of rational and satisfying individual life-patterns. And since there are growing doubts about the social and economic functions of such an educational structure, the notion seems bound to give way to some form of "recurrent

* See "Special Problems of the Developing Member Countries", OECD Document (STP(70)23).

education" (taken up in Discussion Papers No. 1 and No. 3, and further developed in a CERI publication on "Equal Educational Opportunity – A Statement of the Problem, with Special Reference to Recurrent Education").

Moreover, a corollary to this approach will be to accept the fact that education will no longer be the only institution in society with a responsibility for developing the talents of individuals. Industry and administration, all organisations and institutions, in fact, must play a much more active role in promoting and using education for the personal development of those who participate in them. This in itself will lead to a vast change in the educational system, with the formal educational system as we know it today being the centre of a vast network of educational activities in the world outside. What, then should be the relationship between such activities and the formal educational system? The answer will probably be that educational policy will become a co-ordinating policy for a wide range of educational activities in industry, the local communities, professional associations and elsewhere.

Innovation in Depth

Major structural changes cannot succeed without accompanying changes in teaching methods and content. This is surely the lesson to be learned from the major structural changes accomplished since World War II (see Background Report No. 6). This implies that the application of legislation to change structures must be viewed as a process which evolves over a long period of time, and requires explicit provision for:

1. appropriate research and development efforts to precede or support the reform;
2. structures for consultation and participation by teachers and others who are expected to change their professional skills and revise their attitudes;
3. time-phasing to allow for a feasible pace at which attitudes and behaviour can be expected to adjust;
4. the establishment of incentives and retraining for those who are expected to adjust.

In other words, structural change based on legislative reform has to be seen as part of the more general processes and structures of educational change to which we now turn.

D. GOVERNMENT MACHINERY AND EDUCATIONAL CHANGE
(see also Discussion Papers No. 4 and No. 5)

The fast and continuing rate of educational growth, caught up in a more general process of economic, social and technological change, is bound to be reflected in new demands on the machinery of educational policy and administration. Governments are already faced with a confusing array

of institutional developments to deal with the problems sketched out in previous sections of this paper. The Secretariat believes that one useful product of the Paris Conference could be some clearer understanding of how governments should respond to these various demands.

In order to do so, it is necessary to begin with some idea of the special circumstances which confront government policies in the educational field today. (Needless to say, education shares these problems with many other areas of government policy.) As a basis for discussion the Secretariat suggests that the new requirements may be briefly summarized as follows:

i) the need for more global policies, because of the inevitable interconnection between the several parts of the educational system;

ii) the need for more integrated policies, because policy goals in the modern society are served by a variety of instruments, of which education is often only one; and

iii) the need for long-term policies, because the fast rate of change compels at least some framework of long-term objectives if today's major policy decisions are to be reasonably related to one another.

Of course, these simple statements beg many questions and should not hide the complexity of the problem. Indeed, the problem is probably too complex to be viewed as one of government machinery as such, and it is probably more realistic to analyse the problems in terms of process, in which governmental responsibilities are involved in a variety of ways, not all of which imply direct action or control by governments. Such processes may be discussed, it is suggested, under three headings: (*i*) the policy/planning process; (*ii*) the development/innovation process; (*iii*) the science/social change process.

The Policy/Planning Process in Education

Broadly speaking, developments in this area in the past 10 years (i.e. since the Washington Conference) have been dominated by two principal concepts: (*i*) that educational growth needed to be guided by an analysis of needs, on the basis of which a plan could be formulated; (*ii*) that the efficiency or productivity of the system could be enhanced by the introduction of management techniques.

Both these ideas have brought significant results in the Member countries, but both now appear to be reaching a turning point.

As far as planning is concerned, there is growing insistence that, to be useful, plans must be "implemented". Such a trend towards "implementation" planning would imply controls and machinery extending from the centre to the periphery of the educational system. It seems exceedingly doubtful whether it could work even if it were desirable. In the first place, the problems of effectiveness in education are not so much those of detailed implementation as of strategy. Furthermore, of all the sectors of society, education should maintain freedom at the local, institutional, classroom and individual levels for creative social change and individual development. This implies decentralization of decision-taking and of struc-

tures, of a kind which may be incompatible with the controls necessary for the "implementation" of a plan. On the other hand, educational systems must have a coherence which can be provided only by policy and planning, because they are now consuming vast resources and because a lack of coherence has devastating consequences for the development, achievements and happiness of the children who pass through them (e.g. the growing number of "failures" because the expansion of higher education was not recognized as a direct consequence of a policy for general secondary education).

The fundamental problem of policy/planning is thus a potential conflict between a necessary technocratic basis if the system is to be effectively planned in relation to future needs, and if "wastage" and conflict within the system are to be minimized, and the creative process of educational change and development in which individual social groups and communities can play an active part in the development and control of education.

The implication of the first requirement is that educational policy must in future be backed by a strong planning function and that policy and planning must be drawn more closely together than they are today. However, this planning function should not be seen as a mechanism for the precise development and control of the educational system, but as a means whereby broad strategies can be examined in a global way and the real alternatives presented for political discussion.

The second requirement implies that policy/planning calls for debate and discussion of the major alternatives by the various social groups involved in the educational process and by the public at large. Planning instruments should therefore be related to consultative machinery representing all the social groups engaged in education, and to the several ways in which political authorities expose policy alternatives to public discussion.

A further implication of the point of view expressed here is that the planning machinery must reflect the de-centralization of political structures as they exist in individual countries (including of course state, regional and local authorities), but that some measure of strategic orientation of the global system is a *sine qua non* of effectiveness. This of course poses a particular problem in federal countries.

The central question is whether an educational administration established to *administer* a static educational service can cope with the problems of *controlling and management* of a service which is rapidly expanding and changing. Four specific questions arise:

i) will it not be necessary to de-centralize executive and servicing functions so that the central policy and planning machinery can concentrate on essential policy-making tasks (e.g. the Swedish model)?

ii) if what is involved is to relate resource allocation to objectives more effectively, is not a form of organisation based on objectives more appropriate than one based on more or less autonomous levels of the educational system (e.g. the recent re-organisation of the French Ministry of Education)?

iii) given the overriding importance of re-shaping the educational system in the years to come, will it not be necessary to establish a

much stronger organisational capacity to carry out and to use development work? (See Discussion Paper No. 4);

iv) is there not a need for a new approach to educational planning which recognizes the importance of qualitative goals as well as quantitative targets, the alternatives for the specific, strategic decisions which Ministers must take, and brings into the picture the structure of power and decision-taking in the educational system? (See Discussion Paper No. 5 and the Secretariat Introduction to Background Report No. 12).

The Development/Innovation Process

There can be little doubt that the organisation of development functions in education is becoming a matter of high priority. It may indeed be more important, in the immediate years to come, to establish a development policy in education than to establish a research policy. This position calls for justification. The notion that the innovation process is the consequence of the sequence research-development-innovation is at least questionable in any modern interpretation of the relationship of science to society, and more so in the field of social sciences. Active development work in the school system, actin as a focus for stimulus to research, may be both more properly and realistically the subject of policy than the research process itself.

This is not to say that governments should not support fundamental or basic-oriented research in education. On the contrary, the support of educational research as part of the general support of higher education and advanced science is as necessary in education as in other fields. There is indeed a strong case for a fundamental scientific attack on strategic problems such as the learning process, early childhood development and many others. The conflict between scientific freedom and policy "orientation" is certainly not such as to deter "mission-oriented" bodies from supporting such basic research. But it is an argument against the support of basic research with the objective of obtaining "results" which may be "applied", and against organising the innovation process as if it depended on the research-development-application cycle of events.

If the research-development-application process cannot be the basis for the change process in education, on what other basis can institutional functions and professional roles be developed? The Secretariat suggests that the organisation of the innovation process, which will be an indispensable field of policy action in the immediate future, has to be seen as a dynamic process of social change in which research and development are indispensable, but not the only conditions. Neither argument can hold good if the political and administrative principles on which educational policy is based act as a positive deterrent to change. It is one of the dilemmas of educational policy in some countries that equality is enshrined in the notion of nation-wide uniformity of curricula and qualifications, with consequent dependence on legislative action as the principal instrument of educational change.

The legislative process will be too broad and blunt an instrument to keep pace with the realities in the schools of the 1970s. In other words, the ability of the schools to take part in a creative process of development will depend on legal and administrative principles which explicitly recognize their role as an agent of educational change.

More specifically, this will involve giving an explicit mandate and status to experiments in the schools, creating career patterns and incentives for teachers so that innovation is stimulated, establishing educational information networks which are selective and speedy in their action, and creating services which can play a role similar to that of the field advisory services in the agricultural field. Within such a framework, development programmes will be much more effective, instead of the situation which prevails today, namely pilot experiments which constitute "change oases".

Parallel to such policies, it will be necessary to arrive at a better understanding of how the innovation process works and to create the roles, skills, and professional training needed for an effective process of change.

All should be conceived against the general background that planned innovation from the centre and creative social change which engages the initiative of those in the educational process have somehow to be wedded. It follows that development work itself should be widespread throughout the system, decentralized in control, and based in the school and university system itself. Since the accent in development needs will shift over time, programmes with a circumscribed objective rather than institutions with standing functions would be more appropriate. Of course, development programmes would need to be backed up by specialized institutions providing services to all development programmes, e.g. in the fields of educational technology and evaluation techniques. In addition, development work has to be related to a diffusion process, a consideration which would have a major influence on the location and organisational arrangements for specific development programmes. Moreover, diffusion "agents" of some kind are clearly needed in an area, such as education, where the initiative for innovation is highly de-centralized. This consideration has implications for the role of school inspectorates or any similar corps of educational field advisers.

Thus, the requirements for the development/innovation process would appear to be:

i) clear responsibility of the central educational authorities for drawing up a development programme or strategy;

ii) establishment of a central, co-ordinating innovation mechanism with executive responsibilities;

iii) development programmes located in, or close to, the educational system itself, with tailored organisational arrangements according to the development and diffusion needs of the specific programme;

iv) specialist institutions to provide services to development programmes;

v) a diffusion network, based on a service of field advisers.

Finally, a special word must be said about the role of research in the development/innovation process. Development programmes would of necessity incorporate research as a major component. As such, the organisational arrangements would include participation and often leadership by research groups in the universities and independent institutions. But the starting point and the *raison d'être* would be the developme[illegible] objective.

The Science/Social Change Process

The logic of treating the science/social change process separately from the development/innovation process lies partly in an appreciation of the present situation regarding educational research, and partly in the view, already mentioned, that the research-development-application model of change is inadequate in the social field.

Social change springs as much from a re-statement of problems as from an application of "technologies". Science leads to social change by the direct impact of new concepts, theories and problem formulations on policy (cf. Keynes). Indeed, the statement of the complex problems of modern society is becoming a scientific activity in its own right (cf. futurology, systems analysis, etc.). This is clearly true of the educational field, where new general concepts have had a direct impact on policy (cf. economic theories of education, Skinnerism, etc.).

On the other hand, such changes in the statement of problems cannot create new teaching/learning systems with the necessary materials, organisational and pedagogical procedures; this is a function of development work, of which the inspiration must be bottle-necks in resources or achievement as seen by those responsible for the system itself.

The outcome of this line of reasoning, formulated here in very simplified terms in order to promote discussion, would be that:

i) mission-oriented bodies in the field of education (such as ministries of education) should give the highest priority to a development policy and to the research, including basic research, which directly stems from such a policy;

ii) they should also co-operate with science policy institutions in the formulation of strategic problems susceptible to a basic scientific attack, the financing of which would be through the universities, the science councils or educational administrations, according to where responsibility for basic research resides in individual countries.

In some countries, ministries of education (or their equivalent) themselves exercise the responsibility for policy towards basic research, in which case the science policy function and the educational policy function should not be confused.

Such a relationship of science policy and educational policy to the role of science in the process of educational change appears also to be justified in view of the present situation of educational research in Member countries. A considerable part of educational research has developed on a very narrow theoretical front, often without methodological rigour. This is

not a criticism of educational research as such but is a comment on the history of educational research at the present stage of development in the social sciences. This considerable volume of research could perhaps be fructified by rallying it around either clearly defined development programmes or basic research with a clear theoretical and methodological base. Both forms of intervention by governments could have a healthy effect. Both might avoid the pitfall of the disenchantment which follows heavy financing of vaguely defined research programmes on the assumption that they will produce " results ".

The Role of the Universities

The above view of the role of science in relation to social change immediately raises the question of the role of the universities, for they remain the institutions in which science in a general sense is carried out. In a real sense the key question concerning the universities today is how they fit into the process of social change, and how this affects their traditional functions of higher learning and research. It may therefore be pertinent to discuss their relationship to the three processes outlined above.

The brief answer would be that the universities have a role to play in all three of the above processes. The rendency to see the universities at the " fundamental " end of a research-development-innovation process fails to connect with the reality of the university of today, let alone tomorrow. Equally, however, the tendency to see the universities as confined to the instrumental role of training and research to meet governmental or industrial needs is too simple a view of how closely knowledge relates to action.

If, as is suggested above, policy/planning depends on a " scientific " formulation of problems (this conception lies behind the development of " think tanks ", forecasting institutes, long-range planning corporations and the like), then clearly the universities or other institutions of higher learning and research have a responsibility to bring science to bear on the statement of the complex problems of society. This would imply that the development of " think tanks " and similar institutions should not be left to the industrial and defence establishments alone. But to succeed in this role implies success in the multi-disciplinary organisation of research and to some extent of teaching too. It also clearly implies overcoming the barriers between the " hard " and the " soft " sciences. Thus, the development of the " critical " function, which could be defined as a capability for formulating the complex problems of modern society and bringing potential solutions into public discussion, in itself requires a re-organisation of the faculty-based university.

In a real sense the involvement in " problem stating " implies an involvement in the development/innovation process. It is not an accident that student reactions to the problems of the real world have led them into two channels of action which are less visible but perhaps have more significance for the future than the noisier forms of protest. The first is the launching of a whole series of development projects both in the universities themselves and in the surrounding communities. The second is an

attempt to re-state the problems of knowledge and its organisation in the curriculum-building, teaching and research process. There is a clear and necessary relationship between the two, for there is much to be said for the view that a new synthesis is needed between structures of knowledge and structures of action. Development in society and in the economy may not be so dependent in the future on the universities supplying highly specialized manpower as on people with a broader theoretical base on which new qualifications can be built as technology changes. Scholarly and scientific pursuits and involvement in the development/innovation process may not be as incompatible as is implied in the concept that theory is separate from practice.

If we examine this question in the context of educational development and innovation, it is quite clear that the theoretical development of the educational sciences and the training of teachers and other educational specialists cannot be divorced from the practice of education itself. Nor can the universities fail to respond to the need for development work in the school system and in the universities themselves.

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Table I. INCREASE IN ENROLMENTS BETWEEN 1950 AND 1965

Thousands

	1st level			2nd level			3rd level			Total enrolments		
	1950	1965	Difference	1950	1965	Difference	1950	1965	Difference	1950	1965	Difference
Germany	6,314	5,607	-707	2,649	3,565	916	135	368	233	9,188	9,722	534
Austria	920	868	-52	171	293	122	21.0	48.8	27.8	1,123	1,232	109
Belgium	967	1,432	465	364	642	278	30.2	84.4	54.2	1,361	2,158	797
France	5,036	7,302	2,266	1,099	3,249	2,150	187	524	337	6,360	11,201	4,841
Luxembourg	32.5	43.0	10.5	8.9	12.0	3.1	...	...	...	...	...	...
Netherlands	1,557	1,860	303	560	1,100	540	49.8	124	74.1	2,200	3,146	946
Switzerland	...	...	...	...	...	...	19.1	40.9	21.8	...	...	...
Denmark	443	573	130	207	276	69	20.6	52.0	31.4	671	901	230
Finland	489	544	55	123	347	224	12.0	40.9	28.9	625	933	308
Ireland	462	464	2	149	218	69	...	17.1	...	...	699	...
Norway	320	412	92	90	248	158	...	28.9	...	...	692	...
United Kingdom	4,829	5,356	527	2,152	3,450	1,298	180	432	252	7,320	9,512	2,192
Sweden	651	878	227	161	282	121	21.0	77.6	56.6	833	1,238	405
Spain	2,793	3,624	831	376	1,108	732	77.4	156	78.6	3,246	4,888	1,642
Greece	953	1,004	51	...	...	...	16.0	66.0	50.0	...	...	...
Italy	5,572	5,856	284	1,114	3,060	1,946	241	405	164	6,927	9,321	2,394
Portugal	645	904	259	89.9	316	226	15.5	36.0	20.5	755	1,263	508
Turkey	1,617	3,924	2,307	143	730	587	24.0	98.7	74.7	1,784	4,754	2,970
Yugoslavia	1,854	2,984	1,130	275	614	339	55.0	185	130	2,203	3,824	1,621
Canada	2,140	3,922	1,782	382	1,205	823	83.0	326	243	2,605	5,453	2,848
United States	23,084	36,852	13,768	6,526	13,000	6,474	2,297	5,570	3,273	31,907	55,422	23,515
Japan	11,416	10,913	-503	7,268	11,040	3,772	400	1,085	685	19,101	23,082	3,981

1. Pre-primary is included in the first level.
2. Part-time enrolments are not included, except in secondary education in Germany and Austria.
3. Total enrolments are higher than the sum of the three levels because of the courses that it was not possible to allocate to a specific level.

Table II. INCREASE IN ENROLMENTS BETWEEN 1950 AND 1965[1]

(1950 = 100)

	1st level	2nd level	3rd level	Total enrolments
Germany	89	135	273	106
Austria	94	171	232	110
Belgium	148	176	279	159
France	145	296	280	176
Luxembourg	132	135	...	...
Netherlands	119	196	249	143
Switzerland	...	...	214	...
Denmark	129	133	252	134
Finland	111	282	341	149
Ireland	100	146	...	...
Norway	129	276	...	...
United Kingdom	111	160	240	130
Sweden	135	175	370	149
Spain	130	295	202	151
Greece	105	...	413	...
Italy	105	275	168	135
Portugal	140	352	232	167
Turkey	243	510	411	266
Yugoslavia	161	223	336	174
Canada	183	315	393	209
United States	160	199	242	174
Japan	96	152	271	121

1. Calculated according to Table I.

Table III. INCREASE IN AGE-GROUP 5-24 YEARS BETWEEN 1950 AND 1965

(1950 = 100)

	5-9	10-14	15-19	20-24	5-24
Germany	117	88	108	114	105
Austria	107	91	112	113	105
Belgium	140	125	113	85	114
France	153	150	138	91	131
Luxembourg	129	135	108	88	112
Netherlands	123	134	146	114	129
Switzerland	113	137	145	151	136
Denmark	93	118	142	127	118
Finland	109	134	157	108	126
Ireland	105	109	84	78	95
Norway	115	142	156	112	130
United Kingdom	114	113	129	102	114
Sweden	89	119	150	129	119
Spain	127	114	94	87	105
Greece	116	96	92	82	96
Italy	112	97	105	90	101
Portugal	111	109	90	90	100
Turkey	180	163	122	121	148
Yugoslavia	124	113	94	86	104
Canada	168	182	165	124	160
United States	155	170	161	119	151
Japan	82	106	128	118	107

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Table IV. OECD COUNTRIES
TRENDS FOR PUBLIC EXPENDITURE ON EDUCATION OVER THE PAST TEN OR FIFTEEN YEARS

Country	Period	(1) Annual growth rate for expenditure on education %	(2) Annual growth rate for GDP (1955-67) %	Public expenditure on education as a % of GNP 1955	GNP 1965	National Income 1955	National Income 1965	Current public expenditure on education as a % of public expenditure on goods and services 1955	1965
Germany*	1950–66	9.3	5.1	2.17	2.93	2.80	3.84	12.1	12.5
Austria	1957–66	9.3	4.4	3.11	3.68	3.98	4.79	22.9	21.3
Belgium*	1958–67	8.6	3.9	3.25	5.17	3.99	6.48	25.4	34.9
Canada	1954–65	13.5	4.3	2.67	5.66	3.50	7.63	16.8	34.6
Denmark	1955–66	11.4	4.8	3.27	5.49	4.00	6.98	19.0	27.4
Spain	1950–66	10.4	7	1.08	1.96	1.24	2.27	9.6	15.3
United States*	1955–67	8.2	3.8	3.35	5.10	4.07	6.28	15.1	22.4
France*	1952–67	11.0	4.9	2.83	4.55	3.73	6.05	17.5	28.0
Greece	1950–66	12.2	6.3	1.50	2.10	1.78	2.55	11.2	–
Ireland	1950–65	5.7	2.9	2.86	4.16	3.45	5.20	21.1	26.0
Italy	1957–65	13.7	5.3	2.98	5.19	3.79	6.48	–	29.5
Japan*	1950–65	9.8	9.6	4.56	4.55	5.70	5.64	34.0	36.5
Norway*	1950–67	7.4	4.4	3.37	5.38	4.27	5.98	19.1	24.3
Netherlands*	1950–67	11.4	4.4	3.57	6.19	4.41	7.53	20.5	33.2
Portugal	1950–65	6.5	5.4	1.58	1.44	1.81	1.66	11.3	10.0
United Kingdom*	1953–65	7.8	3	2.67	4.17	3.32	5.21	13.5	20.7
Sweden	1957–65	10.0	4.3	4.14	6.41	–	–	20.2	26.0
Switzerland*	1955–64	7.9	4.4	3.07	3.61	3.58	4.31	23.6	25.2
Turkey*	1950–67	9.5	4.6	2.17	3.76	2.50	4.37	–	–
Yugoslavia*	1952–67	17.5	8.5	2.22	4.33	2.47	4.68	–	–
Iceland			4.5						
Luxembourg			2.7**	2.73	4.34	3.44	5.6		

(1) Average annual growth rate for public expenditure on education at 1957 prices. Current expenditure has been deflated by the cost of living index, and capital expenditure by wholesale price index for building material.

Rates have been adjusted by the least squared method.

The figures used are Secretariat estimates.

* These figures have been revised by the National Statistical Services.

(2) Average annual growth rate for GDP (constant prices) calculated by OECD using the first and last years of the period. For Yugoslavia, Gross Material Product between 1956 and 1967 has been used.

Austria, Ireland and Sweden: percentages calculated for 1954.

Spain: percentages calculated for 1954 and 1966.

Switzerland: percentages calculated for 1956 and 1964.

Yugoslavia: concerns both Gross Material Product and Net Material Product.

** Luxembourg: Secretariat estimates.

Part Two

MAIN ISSUES

I

GOALS AND TARGETS OF EDUCATIONAL POLICY*

Discussion Paper No. 1

by

Louis Emmerij
OECD Secretariat

I. INTRODUCTION

Any discussion on goals should at the outset make a distinction between the various levels of the goal-seeking process, corresponding frequently to different levels of decision-making. Thus, it is important not to confuse goal definition at the national level, sectoral level, institutional level and individual level. Many objectives pursued by educational policy are not end objectives, but serve as inputs to attain wider societal objectives. The choices this implies are made, in the first instance and at the highest (national) level of decision-making, largely outside the educational sector and institutions. It is only at the second stage that choices are made within the resulting context as to what the more specific objectives should be, with what priorities they should be carried out (that is, what resources should be allocated), and in what manner they should be accomplished. These choices are determined partly within and partly outside the educational sector and institutions, so that one could talk about a hierarchy of objectives with policy objectives *tout court* (at the national level) and sub-objectives (at the other levels of decision-making) normally derived from the broad policy objectives and compatible with them. We shall call these "derived policy objectives". The first group of objectives has to do with

* This paper is mainly based on the following Background Reports prepared for the Conference.

No. 4. Group Disparities in Educational Participation.
No. 10. Differences in School Achievement and Occupational Opportunities – Explanatory Factors : A Survey Based on European Experience.
No. 11. Education and Distribution of Income.
No. 12. Alternative Educational Futures in the United States and in Europe: Methods, Issues and Policy Relevance.

the interdependency of the "philosophy of education" and the operative values of society at large.* The second group of objectives is set within the resulting context of the choices made earlier.

In this note we shall concentrate more on the first group than on the second group of objectives. However, the discussion on these goals will be linked as much as possible to attempts to make them operational, and in this way some of the derived objectives are also brought into the picture. The reason for doing so is to avoid presenting just another list of general objectives to which governments adhere in the sphere of education and to concentrate instead on the operationalization of such goals, i.e. on their translation into more specific educational goals and targets.

II. THE SITUATION DURING THE 1950s AND 1960s

The most striking fact up to about the mid-1960s was the attempt to quantify – and thus to operationalize – two general educational policy objectives. The first has been described as being "to provide adequate education for all individuals and groups to the highest levels they demand". The second "to provide society and the economy with the trained manpower resources required for optimum functioning". An extensive literature has grown over the past 10 to 15 years concerning the planning techniques for the quantification of these two broad objectives. These techniques are discussed elsewhere.**

At the same time a certain number of structural changes (both organisational and pedagogical) were introduced*** – particularly, but not exclusively, at the secondary level of education – which in the main were meant to be operational in attaining "derived objectives" but also with a view to meeting a third, and much more ambitious, policy objective, namely equal educational opportunity. However, these structural changes were frequently proposed and defended on the grounds of the two other general objectives also mentioned above.

If we look back at this period of approximately fifteen years (1950–1965), the implicit goal structure of the educational policy has been dominated by the first general objective, also called in the name of brevity "social demand". We have witnessed an exciting race – which is still going on – during which educational policy measures have been continuously outpaced by the individual demand for education. This race has resulted in what has come to be called the "educational explosion". Still in retrospect, if can be asserted that the second broad obje[illegible] – the one concerned with economic and manpower requireme[illegible] which had an

* We adopt here the definition given in Background Report No. 12, Part Three : "Operative Values" are those values which would be inferred from actions taken. They are, therefore, not necessarily the same as those for which one professes allegiance.

** See Discussion Paper No. 5 on Educational Planning and its Relationship to Policy.

*** See Discussion Paper No. 3 on Educational Structures.

apparently predominant position in the explicit goal structure during the 1960s – has in reality mainly served as the "objective" argument in favour of allocating additional resources to the educational sector. In other words, the second goal has served as an important educational lobby in favour of the first goal, made possible because during the period under consideration the results of the quantification of both goals pointed in the same direction. As to the third general objective – equal educational opportunity – in most Member countries, and during the larger part of the period under discussion, it was equated more with the first objective mentioned above, i.e. "social demand". This has resulted in a passive policy towards the equal opportunity goal, with the exception of a few countries only.

Since the latter part of the 1960s a number of developments have taken place which may well be forerunners pointing to a possible change of priorities and emphasis within existing educational goal structures, and which make the above picture look like a rather "naive" reflection of the intricate relationships existing between education and the larger social system. This, of course, is too strong a statement because (*i*) in the real world the situation is never so simple that it can be sketched in a few paragraphs, and (*ii*) the recent developments in the goal-seeking and goal-definition process have been triggered off also because of analytical and empirical work which would not have been undertaken without the first stage attempt to operationalize educational goals. There has been, first, a swing towards a more active policy directed towards the equal educational opportunity objective, accompanied by a new look at the role of education in the economy. This trend reflects a strengthening of forces which have already been at work for some time and does not, therefore, imply an important pull away from the existing goal structure. Second, and more recently, one sees the beginning of a re-evaluation of the role of education in society, a society which itself starts questioning the existing priorities in its overall goal structure. It is this trend that may have important consequences for educational goals and policy formulation in the future. These two points will be dealt with in turn.

III. INCREASED STRESS ON EQUAL OPPORTUNITY

Background Report No. 4 brings massive statistical evidence to bear on the extent to which social disparities in educational participation have changed during the past period of very rapid educational growth. As could be expected, all social groups (whatever their definition) have benefited from the general increase in overall educational opportunity. However, for most countries the statistical evidence also shows that social disparities have not changed substantially during the past twenty years. This phenomenon can be likened to *per capita* income changes and income distribution: everyone is getting more, but the differences between groups remain substantially the same. It has become quite clear that by giving people –

from very different social backgrounds and, therefore, with widely different family and social environment characteristics – access to the same schools and the same curricula (i.e. the same educational opportunity), the results in terms of educational achievement vary substantially and systematically according to social groups. This, in turn, is clearly one of the important explanatory factors of the observed differences in participation at the higher levels of education. The conclusion must be that, to overcome background disadvantages, the goal of educational policy will have to broaden the equal opportunity concept to include also equal achievement.*

However, as was stated at the beginning of this paper, many objectives pursued by educational policy are not end-objectives, but serve as inputs to attain wider societal objectives. This clearly applies to equal educational opportunity as well. Does equal educational opportunity result in equal occupational opportunity, or in equal personal income opportunity? If not, what other wider societal or individual goals are being served by realizing the equal educational opportunity goal? These questions lead to a reconsideration of the role of education in the economy. As Background Report No. 11 (and its Annex) on "Education and Distribution of Income" documents, there is, thus far, no conclusive evidence that the observed increase in educational opportunities have had a marked impact on income distribution.

One of the strongest common assumptions in most Western societies is that education is the key to upward mobility. This common belief in the efficacy of education as a means of individual social advancement has been combined with a growing social consensus that education should be used broadly as an instrument for social change, i.e. a large-scale opening of educational opportunities through governmental intervention should be a principal, or even the principal, instrument for the transformation and progressive modernization of societies. Background Report No. 11 and its annex make an attempt to juxtapose pieces of evidence from several areas of the economics and sociology of education. It is not comprehensive and, perhaps, in the selection of points considered important, it is misrepresentative. However, it is shown in these papers that the juxtaposition of empirical evidence does raise a number of substantial, unresolved issues. The big question put forward by these papers is: "What if the efficacy of education as an instrument for change is not as clear as the common belief would suggest?" If that is so, the pressure for change is being diverted into "futile" educational activity – activity which will, in fact, not generate change. These doubts will either have to be dispelled or, if they are substantiated, our understanding of the educational process will have to be deepened to the point where we can transform education into a truly effective instrument of social and economic progress.

* For a discussion on this point, see James S. Coleman, "The Concept of Equality of Educational Opportunity", in *Equal Educational Opportunity, Harvard Educational Review*, Harvard University Press, 1969. It is important to keep in mind Coleman's point that equality of achievement "does not imply that all students' achievements come to be identical, but only that the averages for two population groups that begin at different levels come to be identical. The diversity of individual scores could be as great, or greater than, the diversity at grade 1", cf. p. 23.

The above rapid survey, based upon the evidence documented in the Background Reports, suggests the following conclusions: (*i*) society, the meta-system, imposes constraints as to what, in the long run, will be fostered, tolerated or opposed. A movement within the educational sector which is not aligned with the general drift of the larger society, for instance, is unlikely to persist. In other words, the existing educational systems do not seem to have as large an independent effect on society as was previously thought. Changes in societies at large may have to go hand-in-hand with important and real changes in educational goals and targets. This conclusion is valid for the situation and for the period reviewed in the Background Reports and does not necessarily hold for the future. (*ii*) The objective functions of the system may not necessarily be what the society or its leaders may declare as its goals. Implicit goals can be inferred from the outcomes. Thus, if we find that the operation of the school system tends, in fact, to perpetuate social class differences, we are forced to reconsider goals or the methods of their attainment.

IV. ALTERNATIVE SOCIETAL AND EDUCATIONAL FUTURES AND EDUCATIONAL POLICY GOALS

The preceding list of ambiguities, and doubts – concerning both the implicit educational goal structure and the role of education in social and economic change – is not without relationship to the recent thinking about alternative societal and educational futures, as outlined in Background Report No. 12. The major rationale of this work is that an analysis which highlights long-term educational issues, and the projected consequences of alternative responses to them, may be of considerable value. One of the basic questions faced by the analysis of societal futures is whether the operative values which have served to bring us to the present point of technological and industrial development will continue to be of service in dealing with the problems created by that development. Obviously, the goals assigned to the overall educational undertaking, and hence all of educational planning and policy, are centrally affected by the ultimate outcome of the "value-choice" crossroad. The major methodological challenge consists of finding the right balance between the results of a mix of quantitative and qualitative educational forecasts describing a possible, plausible or desirable future state on the one hand, and the results of a consequential analysis describing alternative societal and educational futures resulting from present and future decisions on the other. However, these technical problems are not the concern of the present paper. What does concern us here is the fact that, through the investigation of alternative futures, a host of factors, which until now have been exogenous to the planning process, will be considered as endogenous. Alternative goal structures can be made explicit as well as the choices implied of opting for one rather than another. This trend toward which the educational planning process seems to be moving presupposes, of course, a very active attitude on the part of the decision-makers.

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A very important problem, as already implied above, will remain the relationship between societal and educational objectives and, therefore, between societal change and educational change. Can one expect to change the future educational system in such a way that it becomes a more effective instrument in societal change (the "optimistic view"), or does such an attempt represent an utterly unrealistic view of the potential impact of education – in whatever future form? If so, should the operative values of society change first so that educational goals, structures and content can finally become very different from what they are today (the "realistic view")? Notwithstanding the obvious feedbacks existing between the education sector and the social system brought out in Background Report No. 12 (and in particular in its Part Three) the study seems to incline towards the "realistic view". There it is claimed that alternative future states of the society represent, in some sense, alternative dominant belief and value systems. Two contrasting societal futures are singled out. The so-called "second-phase industrial society" has the same operative values as the present society. By contrast, in the so-called "person-centred" ("humanized technological") society these operative values have changed.

As to the implications for education, so the Report argues, if society moves towards a "second-phase industrial" state one can anticipate increased emphasis on the role of education as playing a major part in accomplishing social goals and alleviating social problems (poverty, racial discrimination, environmental deterioration, etc.). There will probably be strong reliance on "behaviour shaping" approaches, involving the detailed specification of desired behaviours to be imparted by contingency management techniques. On the other hand, if society moves towards a "person-centred" dominance, educational goals will shift accordingly: more emphasis on students becoming more effective thinkers and learners. In such a society education will centre on developing self-learning habits and skills, on problem-solving and decision-making abilities, individuality, capability of continuous self-renewal, and self-understanding. Competitive grading will assume much less significance.

It is this wider societal framework which provides one possible framework for a discussion on socialization and individualization as important educational policy objectives for the 1970s. Individualization as a priority goal is advanced more and more frequently. However, depending on what the operative values of society, and on whether one can increase the independent effect of the school, individualization will be a major end-objective or a derived objective. Probably nobody would deny the importance or the desirability of individualization as an educational policy objective. One of the major tasks of schools until now has been to act as a selective device, taking little account of individual desires and aspirations. This has also been reflected in the curriculum and in teaching methods. Individualization could bring about a major change with respect to this state of affairs. However, the question remains in what societal context this educational goal is being pursued. If we are moving towards a "second-phase industrial" society, the socialization objective will in the final analysis dominate the individualization goal, because once out of the educational system the individual will have no real possibility of influencing social structures. In other

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words, individualization in this case can be realized only in narrow educational terms. If, on the contrary, we are moving towards a "person-centred" society, individualization becomes really a primary objective of policy, because the individual person will have an increased chance to realize his full potential and will be able, through his own choices, to influence the existing social structures.

The preceding discussion has attempted to indicate the margins of manoeuvre for "realistic" educational goals. The degree to which the above picture may reflect a pale caricature of the real world – through its concentration on extreme situations – might be one of the key-point for discussion.

V. EDUCATIONAL POLICY FORMULATION

In the last analysis, an educational policy implies a clear definition of the educational goals and their translation into yardsticks within feasible limits of growth and qualitative improvements of education. In other words, the goal structures must be identified and operationalized. This means determining criteria and priorities, and then defining the global strategies necessary to reach them, with the resource and other implications spelt out. Without such a clear goal definition, educational planning is exceedingly difficult. The degree of realism and sophistication of educational planning depends on the degree of clarity of educational policy formulation and vice versa.

The brief survey presented in section III above is, for example, indicative of the fact that until now the declared objective of equal educational opportunity has never been clearly defined in policy terms (what exactly does one mean when talking about equal opportunity), nor been translated into operational terms (how *much* can one achieve and over what period of time). Operationalizing the goal of equal educational opportunity requires an active educational policy formulation which in turn necessitates an answer to the following joint question: (*i*) how far can one go, within defined economic, social, cultural and financial constraints, in achieving equality of educational opportunity? and (*ii*) if one would like to go further, what would this mean in terms of changes required in the economic and social structure and in the operative values of society? However, no far-reaching analysis has been undertaken anywhere concerning the complementarities between various possible and feasible educational strategies to reach this goal, nor about the interrelationships between the equal educational opportunity goal on the one hand and other educational and societal goals on the other.

One possible new approach to this problem is to restructure the educational system in terms of "recurrent education".* Tradition holds that as

* This is taken up in Discussion Paper No. 3 on Educational Structures.

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much education as possible should be squeezed into the early years of life. The prevailing notion is that a total of, say, 16 years of education should be given between the ages of, say, 6 and 21. In contrast with, but by no means in opposition to, this notion is the idea that education could be spread over a much longer period, that, for instance, a total of 16 years could be given between the ages of 6 and 30, or 6 and 40. The introduction of recurrent education would constitute a radical departure from the existing framework and would clearly have widespread effects on all other sectors of education. Organisational and pedagogical differentiation would have to be introduced at the secondary level to give it more flexibility and thus enable people to resume their education at any time.

Recurrent education would be instrumental in meeting the objectives of equity, occupational flexibility, and integration of education with active life. This last objective should be noted in particular. With the steep increase in enrolments and the average time the individual remains in the educational system, the dichotomy between the educational sector and the other sectors of human activity, and between the educational span and the active working life of the individual, has become so marked as to raise serious social problems. An educational strategy which would diminish the existing distinction between education and other socio-economic sectors would at the same time diminish the dangers of a growing irrelevance of one system to the other and, eventually, of a growing gap between the younger and the older generations. As such, recurrent education, also because its introduction would imply much more stress on individualization, appears promising in the light of the discussion presented in sections III and IV above.

VI. AGENDA FOR THE DISCUSSION

If the preceding outline of the situation is not too far off the mark, definite deficiencies could be said to exist in most countries in the way educational goals are defined and, in particular, operationalized. This may be due to lack of methods and techniques for exploring alternative societal and educational futures, of analytical techniques and information about the feasibility of alternative strategies to reach given goals, of qualified people to undertake these tasks, and of interest on the part of decision-makers, etc. One may also feel, of course, that the prevailing goal structure, however defined, is coping very well with the present situation and will continue to do so in the future. However, if this is not so, are any steps currently being taken to rethink the whole situation with respect to the goal-seeking process?

Now that in the highly industrialized countries economic growth is more and more (explicitly) seen as an instrument to satisfy social and individual needs related to what has come to be called the "quality of life", educational goals may need to be adjusted accordingly. This raises the question of whether education can become instrumental in helping the

individual to cope with and to master the runaway technological "explosion". By the same token, it raises the more general question of the independent role and impact we think education has or could have on societal structures and values.

Finally, and this is the link with Discussion Paper No. 5 on Educational Planning and Policy, the problem must be faced of the institutional arrangements required to remedy the existing weaknesses in goal definition, operationalization and policy formulation.

KEYNOTE ADDRESS

by

Ingvar Carlsson
Minister of Education, Sweden

EDUCATIONAL GROWTH IN PAST DECADES

The hosts of this Conference have prepared an impressive amount of material that shows the magnitude and the structure of the growth of education in the OECD Member countries since 1950. The reasons why education has been almost unanimously supported and developed are mainly the same in all countries: a wish to meet a social demand and a manpower demand. In terms of an overall policy for society, the goals of education have been, briefly, economic growth and equality between citizens.

In a more general setting I would like to look upon education as a promoter of social change. A central theme in the documents that have been sent out for this meeting is the examination and discussion of opinions on the key role of education as a promoter of social change. It has been questioned whether, so far, we have not had too great a faith in education as a tool for our policy of equality, for instance, and whether educational policy has played too passive a role in the work for more general political targets.

It is possible that we have been too optimistic, particularly perhaps concerning the time it takes to bring about changes. On the other hand it is hardly possible to change society only through education. To equalize educational opportunities without influencing working conditions, the setting of wage rates etc. in other ways, would easily become an empty gesture. The reforms of educational policy must go together with reforms in other fields: labour market policy, economic policy, social policy, fiscal policy etc. But the decisive question is whether, when transforming society, we can neglect educational policy. The answer to this question is in my opinion no. Through education it is possible to make people aware of decisions and changes in different areas of society, to create in them a preparedness to observe, evaluate and act, and in this way further such changes.

The view of education as a promoter of social change is a rather modern one. The classical view of education was one in which development of the personality and knowledge of the culture and traditions of the

society were the main objectives. These are still essential components of the educational goal, although our ideals relating to individual development and to our society and its traditions are different from those of the beginning of the century, or, for that matter, earlier periods. A most important example of this is democracy. To us, the furthering of democracy is one of the main objectives of education, and education for all is a necessary condition for democracy. In my opinion, however, we have a long way to go before we reach a truly democratic society. A major instrument in this development is a more democratic school.

These various aspects of education create tensions between those who have different opinions about it. Different opinions on what society and individuals stand for lead to different opinions on the contents and distribution of education and the forms of educational activities. And if economic growth is stressed, then the distribution of education among indiiduals may not be the same as if equality is the central goal.

Those who consider economic growth most important may draw the conclusion that the selective school is most suitable. If, on the other hand, one maintains that education provides the possibility for individuals to develop themselves and their society, then it is a privilege to which all citizens should have an equal right. This implies an educational system which does not sort people out according to their achievements, so that some will receive a great deal of education while others have to be content with only an elementary education. Let us look at the results of the tremendous post-war expansion of education as compared to the objectives and reasons for this huge effort.

Was the growth optimal for economic growth? We do not know, but the shortage of well-trained people in certain key sectors may lead us to believe that the expansion has been insufficient, above all in the education of adults.

Did the growth further social equality? The answer is yes in the sense that the number of educated persons from the lower classes of society has reatly increased, but here again there are signs of a contrary development. Many investigations show a strong relationship between achievements at school and social background, to the disadvantage of the lower classes of society. If we do not solve this problem, there is a risk that the situation will become worse in the future. Schooling will then be one of several instruments for social selection contrary to one of the central targets.

Has education developed the personalities of millions of young people in our countries? One might fear that it has rather adapted men and women to a traditional system than developed the capabilities of each individual. And the more advanced forms of general education are still restricted to those who have already had a good chance of personal development.

Thus there are many questions which arise when we look back at this unique period of educational growth. And we must ask whether today's tendencies should continue. Shall we *plan* for future educational growth? What should be its goals and its targets? Will there be resources for what we want to achieve?

GOALS AND STRATEGIES OF EDUCATION

The discussions in the 1960s on educational planning have very often had manpower demand and social demand as their points of departure. These elements of the goal of education seem at first sight to cater fairly directly for the requirements of economic growth and equality. However, there are serious difficulties. Even if they are well-known, I should like to stress some of them.

Is the *manpower demand* anything other than a projection of the output from the educational system during past decades? Our estimates of the need of trained people always start with what we have. In my belief manpower projections are more a judgment of the adaptability of the labour market than a statement of what is optimal for economic growth.

And what is the *social demand* of education other than a projection of the structure of the underlying schooling and of the prejudices and deficiencies of our society? Thus, pure planning for social demand is a perfect means of conserving the inequalities and imperfections of today. One basic and dangerous fallacy behind the social demand approach is to neglect the distinction between increased educational opportunity and equalized educational opportunity.

If education is to be an instrument for social change and development, there is a need for a bolder approach. We have to attempt a *more complete formulation of goals*.

On the basis of a consciousness of what we want from education, we have to analyse the total costs and benefits of various alternative plans. This must include such elements as the distribution of educational resources between young and adults, which in my opinion is one of the central themes of education for the 1970s.

WAYS AND MEANS FOR FURTHERING EDUCATIONAL GOALS

What I have been hinting at means that mere expansion within the present educational structure would involve an inefficient use of resources, inefficient with respect to the goals that should be set for education. Let me pinpoint a few keys to the educational structure of tomorrow.

a) No binding of any individual at any time. This means that every individual should, within the totality of primary and secondary education, be given vocational training and general education. Moreover, entrance requirements have to be reformed so that further study will be possible irrespective of the vocational or academic bias of earlier schooling. The usual rules of access to education are formidable instruments for preventing the use of the existing educational resources in such a way. What really matters for a person who wants to take up a subject of study is that he has a frame of reference relevant to the selected field. It is of minor

interest whether this frame of reference is the product of a certain period at school or of a period at work in production. It is also my conviction that new training methods will be necessary in all education; methods where learning will take the place of teaching, methods that provide scope for individual variations much more than now. If such methods are developed, they will allow a flexibility also in the requirements concerning the specific level of knowledge in the selected field of study.

b) *Educational incentives to everybody*. Psychological and economic incentives for education will have to be given not only to those who are now selected for certain branches of education. Today the unequal use of equal rights to study proves that we are far from a really equal distribution of educational opportunities. I wholeheartedly agree with the discussion paper on this topic where it states: "To overcome background disadvantage, the goal of educational policy will have to broaden the equal opportunity concept, to include also equal achievement". State support for education in economically weak communities and economic support for those who cannot afford to keep this children at school are obvious examples of what must be considered. Another example is compensatory educational measures to children from educationally poor environments.

c) *Compensatory efforts*. It is well known that social disadvantages are founded very early in childhood, and that necessary compensatory efforts in primary school are insufficient to even out these differences. The enormous resources of each child are thus often hampered or destroyed by a poor environment. Thus compulsory pre-primary education is one of the most important targets of education for the near future. Such measures must then be followed up consistently throughout the school system. For pupils with obvious mental and physical handicaps much greater efforts have been made, comparatively speaking, than have been made for other groups.

Incidentally, this is perhaps the field in which it has been most clearly shown that we can achieve more by education than we believed was possible only 5 to 10 years ago. By special educational measures we have been able to offer, even to the seriously handicapped, occupations which are meaningful to them and useful to society. Now we must make *special efforts* within school also for other pupils with difficulties, for instance caused by social handicaps. We must be prepared to reconsider our principles for the *allocation of resources*. The less successful pupils must get a comparatively larger part than the more successful. To make such a reallocation possible is a central task for educational research and development.

Such selective efforts should not imply a continuation of parallel branches of education, which would easily lead to a blind alley for those we want to help. The line of action must be *individualization* in this case as well. To find methods for this is one of the most important targets for the seventies.

d) *Recurrent education*. The distribution of educational resources throughout the life of each individual is a central problem in today's educational planning. The balance between efforts devoted to education of adults and of the young is a question both of equality between generations and of

economic growth. And once this is admitted, the next problem may be to set a limit to the length of youth education (including the post-secondary level) in order to allow resources for education at later ages.

There are many reasons for recurrent education. At present a more *equal distribution* of education between the privileged young generations and the educationally unfairly treated older generations is an important question of equality in all countries. But even if the older generation is as well educated as the young, there will always be groups that run the risk of being cut out on the labour market when developments make their originally-good school education less valuable or when they have to change occupations on grounds of health, for instance. It is a question of making individuals capable of mastering and controlling the structural changes instead of becoming their victims.

A system of recurrent education should promote the integration of practice and theory and should *reduce the gaps* between those working and those studying, as well as between the generations.

The certainty that there is always a possibility of coming back should also moderate the demand for education during early years. Within the present system there is probably a very large group of young people who go on to post-secondary education for reasons of safety, so to speak, without decided plans or motives.

A system of recurrent education is not without difficulties. There is a risk that it might provide a still freer scope for the demand for education that is today socially determined. This raises other questions, on the one hand the question of extension measures, on the other the question of study assistance. The latter is intimately related to the demands of a transformed labour market which a system of recurrent education calls for.

e) *Selection mechanisms*. Selection for a course of training means that educational resources are transferred to those selected. If equal distribution of such resources is a goal, then we must question our present selection policy, which is highly cumulative: partaking in one course means a higher probability to be selected for the next one. Fundamentally it must be questioned whether equality can be obtained by general action. The future admissions policy will have to include as an important element the selection for education of the handicapped, using the word in a wide sense.

To give a hint of the magnitude of the problem, I may simplify it in this way: today we select the best fitted for education; tomorrow we have to give the worst fitted a real chance to be selected.

f) *Reform of contents of education*. Not only the quantity but also the contents of education may be discussed on the basis of social demand and labour market demand. I have also hinted at the balance between tradition and innoation. This whole complex is very difficult to survey. To me it seems obvious, however, that a curricular reform has to take as a starting point the needs and capabilities of individual pupils. The transfer of such traditional knowledge as is regarded as nonsense by the learners is a good example of inefficient use of resources. The wide range of educational needs, for adults and for the young, for the slow learners and the quick, and for all other kinds of individual differences, will require funda-

mentally new teaching methods. These will have to meet the needs of various individual goals as well as of the social goal of education. It is probable that these new teaching methods will include individualized teaching. It is then important to stress that individualization must not mean an isolation in the teaching situation between pupils with different levels of proficiency.

My list could certainly be extended. What I want to stress is that continued educational growth without major changes of structure, curriculum and methods will mean the conservation and accumulation of the inefficiencies and injustices that we inherit from times when the role and structure of society were different.

RESOURCES FOR EDUCATION

There is no reason to believe that educational costs should be fixed at the same proportion of the GNP as today. If education is as efficient as I believe it could be in furthering social and international understanding, in strengthening individuals mentally and physically, as a factor for equality in competition with all the forces that increase differences between human beings, and as a means to increase our material and social welfare, then the educational budget should reasonably expand. And yet restrictions will be felt as more severe than up to now. All those structural changes that I have touched upon will need new priorities within the educational budget, and it may well happen that expenditure on many traditional activities will in the long run be cut down.

The development during the sixties has led to a great expansion of secondary education and, as a consequence, a considerable influx to higher education. There are also strong tendencies to simplify or modify the conditions for access to higher education, which in a short time would lead to the same results as in secondary education. The goal has been described as equalizing educational opportunities; but if this is to have a real meaning for the immediate future, it may be questioned whether the solution lies in an allocation of resources which makes it possible to accept all who want a continued education – if such resources can be mobilized.

It may, in fact, rightly be questioned whether present resources for education are put to efficient use. I have already touched upon one essential and obvious aspect of this, which is too often neglected: efficiency has to be related to a well-defined goal. A given use of 5,000 francs may be efficient with regard to one goal and inefficient for another. For this sum we can decide to accept one new student or improve the education of the group already being educated. We can discuss efficiency only if we agree on the goals. It is therefore sad to note that efficiency is very often discussed without even mentioning goals.

But there is one more thing that I should like to stress in this context, which is equally obvious but, it seems, very often overlooked by those who

plead efficiency, whether by the introduction of technical aids or by order and discipline. It is this simple fact that the largest cost by far in education is the pupil's time. To find ways and means that make the period of education meaningful to individuals and to increase the learning activity of each student is probably the safest way to increase the efficiency and effectiveness of the educational system. The learning process is efficient when it works with the learner, not against him. This underlines what I said earlier about the possibilities in the seventies of allowing education to expand further. When choosing between quantitative expansion and qualitative improvement we cannot one-sidedly stake on the former. For all of us, this simple truth is a challenge. And the OECD appears to be taking up the gauntlet.

CONCLUDING REMARKS

The development of the discussion on educational goals is mirrored in the evaluation of the discussions and work of the Organisation. Initially, the efforts of the OECD in this field were stimulated by a concern for the development of production in the OECD economies and the consequent demand for scientific and technical manpower. The relationship between the growth of the economy and the need for education was investigated closely. Gradually, the complexity of the demands bearing on education was realized, as well as the connections between, on the one hand, education and, on the other, not only economic growth but also social development and the problems of social change.

As is stated in Discussion paper No. 1, submitted to this Conference, the key problem today is that of relating educational growth to the new qualitative goals which it is to serve. This is reflected in the programme for this Conference, aiming at elucidating the various aspects related to the structural and qualitative changes needed to make our educational systems more effective in terms of economic, social and individual goals.

To Member countries faced with these complex problems of the educational expansion of the 1970s, a broad approach is a prerequisite for meaningful planning. It is of the utmost value that the OECD, furnished with a wealth of experience from all sectors of our society, has early realized the necessity of such an approach and established an interchange of its amassed experience among the Member states.

In this introductory presentation related to the topic of goals and targets of educational policy, I have stressed first the importance of clear goal formulation. In this context I have mentioned the importance of equal educational opportunity and the ambiguities involved in the measurement of progress in this sphere. This, it may be mentioned in passing, would be an argument in favour of setting up criteria for evaluating educational development by which the success, or lack of success, with which educational measures achieve the goals, can be unequivocally evaluated.

Secondly, I have referred to the importance of recurrent education and individualization, and of all that this implies in terms, for example, of incentives, compensatory efforts, changes in selection mechanisms, and even in terms of the impact of the individual on the social environment – as ways and means to reach the overriding policy objective of equal opportunity and individual self-fulfilment.

Thirdly, I have emphasized the importance of *explaining the goals* for the purpose of judging the allocation of resources to and within the educational sector. Criteria for judging the effectivenesss of education must change according to the *goals* and cannot therefore be discussed in isolation from these goals. This illustrates at the same time the interdependency of *educational goal formulation* and educational policy and planning, which, although the topic of another point on this Conference's agenda, I could not avoid mentioning in bringing my remarks to a close.

II

RESOURCES FOR EDUCATION

Discussion Paper No. 2

by

Gareth L. Williams
Associate Director, Higher Education Research Unit
London School of Economics
assisted by Members of the Secretariat

I. INTRODUCTION

It is becoming widely believed that the rapid rise in public educational expenditure of the past fifteen years will be increasingly difficult to maintain. As Background Report No. 2 on educational expenditure shows, between 1950 and 1965 educational expenditure increased by more than 7 % per year, at constant prices, in seven of the ten OECD countries for which observations were available. In general, the increase was most rapid in higher education. It appears that the elasticity of educational expenditures with respect to national income growth was between 1.5 and 2 in all OECD countries. In other words, educational expenditure increases at a rate nearly twice as fast as national income.

If these rates of increase are projected until 1980, the proportion of national income devoted to education will be more than 10 % in eight OECD countries, between 5 and 10 % in seven countries, and under 5 % in five countries. These are large figures, and, particularly when expressed in terms of public budgets, there are grounds for doubting whether they can be achieved.

Current concern over the volume of resources for education implied by present policies involves three separate issues:

i) Is there a ceiling to the proportion of national income which can be devoted to education, and is this limit likely to be reached with currently projected increases?

ii) Is the educational system using its resources in a technologically and economically efficient way: i.e. is there scope for reducing costs,

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quite apart from whether any limit to available resources is being reached?

iii) Do present methods of financing education provide an equitable distribution of resources?

The aim of this paper is to raise some of the points relevant to a discussion of these issues.

In considering the resources used by an economic sector, it is useful to distinguish between the real resources used by the sector in terms of human resources, capital and equipment, and the money measures of the value of these resources. This distinction is particularly important at the present stage of the debate about educational expansion because, on the one hand, there are aspects concerned with the possibility and desirability of a continuing rapid increase in the real resources devoted to education, and, on the other, questions concerning the best way of financing the use of these resources. At present, the discussion is sometimes confused. For example, in considering possible alternative sources of finance for education, it is not always clear whether the aim is to use financial mechanisms to promote greater economic efficiency in the educational system (i.e. to secure a greater output per unit of input), whether it is to secure methods of financing which are ethically or politically more acceptable, or whether it is to secure additional funds. All three are important, but they are separate issues and are treated as such in this paper.

II. REAL RESOURCES

The most important real resources used by the educational sector are human: students and teachers.* There is a problem because these two fundamentally similar inputs are treated radically differently in conventional national income accounting practices. Students are treated as if they had no opportunity costs and are therefore a free input, whereas teachers are treated as an input with a cost to the economy equivalent to the value of their salaries. Thus, an educational system which is relatively extravagant in its use of students (high wastage rates, long courses, low quality graduates) and sparing in its use of teachers (low staff/student ratios, poorly paid, low quality teachers) can appear to be economically efficient.

However, as far as students are concerned, it is not possible to discuss the problem independently of a consideration of the objectives of educational policy.

If educational policy is based purely on a "social demand" approach, having students in education is an end in itself, education is being treated primarily as a consumption good, and the more students there are, the greater the output of the educational system.

* For a comprehensive discussion on the issues related to the teachers' situation, see Background Report No. 3 on "Teaching Staff and the Expansion of Education in Member Countries since 1950".

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At the other extreme, education might be treated entirely as an investment in human capital, the objective being to maximize either the level of national output at some specific future date or the growth rate through time. In this case, any time spent in school would be treated as a loss of production and could be justified only if it were compensated for by an appropriate increase in future production.

Obviously, the real situation in most countries is somewhere between these two extremes. It is, however, of some importance whether "social demand or investment" criteria are likely to receive greater emphasis in the future. The question is whether in the evaluation of alternative educational policies inputs of students' time are to be considered a cost or not.

Apart from students, by far the most important input into the educational process is represented by teachers. Their services are apparently an unequivocal economic cost in that if they were not active teachers they would be in other paid employment.

However, one reservation may be noted. Many qualified teachers are married women. If there were no teaching posts available, they might well not work at all. Conversely, there are large numbers of married women, currently not working. who are potential or retired teachers. If arrangements can be made to enable these women to take up teaching again, this would represent little real economic cost.*

If these potential teachers are ignored, the important question from a resources point of view is what proportion of the available human resources is represented by teachers. In the early 1960s, all OECD countries, with very few exceptions, had between one and three per cent of their labour force as teachers in some branch of education.** It may be claimed that a more important consideration is the proportion of highly qualified professional manpower which teachers represent. This, of course, is much higher – between 25 and 40 % in nearly all OECD Member countries. Two comments may be made on this percentage. First, the proportion of qualified manpower in teaching, in general, is lower the higher the level of economic development. This empirical finding is reinforced by the logical point that one of the peculiarities of the educational system is that demand creates its own supply (i.e. students are potential teachers some years later). Therefore, in stable conditions, a large educational system will not use a greater proportion of qualified manpower than a restricted system.*** Changes in rates of growth will, of course, temporarily invalidate this

* This is not to say that revenue would not have to be found somewhere to pay them. There would be some cost since they would presumably employ other people to do some of their previous unpaid work as housewives and mothers. It should also be noted that attempts to do this in England and Wales in the mid-1960s were not entirely successful. The inactive married women teachers were not living in areas of teacher shortage.

** This paragraph is based on figures obtained from *Statistics of the Occupational and Educational Structure of the Labour Force in 53 Countries*, OECD, 1969.

*** In fact, since an expanding educational system has an increasing proportion of enrolments in higher levels of education, and since all teachers are included in highly educated manpower, in general the more expanded the total system the lower the portion of qualified manpower required as teachers.

argument, but there is little suggestion that the rates of growth of educational systems over the next decade will be greater than for the previous one.

It seems that, in real terms, the human resources requirements of education during the next decade are unlikely to be a serious burden on the economies of OECD Member countries,* even if present rates of educational expansion continue, and even if general staff/student ratios improve. A doubling of enrolments with constant staff/student ratios would result in between 3 and 5 % of the labour force as teachers in most countries. The considerable expansion of higher education in the majority of Member countries means that the proportion of highly qualified manpower required by the educational system would not increase for any likely expansion.

This general conclusion may not, of course, apply in the short run in particular sectors. There may be no overall problem, but a shortage of science teachers, for example. This is a serious short-term problem. Some OECD countries have an extreme shortage of mathematics teachers, brought about in part by the high demand for mathematics graduates in a technologically oriented society. There is a real danger of a downward spiral – too few teachers, leading to too few students, resulting in an even greater shortage of teachers later. In such circumstances, the aim must be to convert this downward spiral into an upward one by emergency measures to increase the proportion of mathematics graduates who are available to teach mathematics. The dynamics of such a process are complicated but, in overall terms, it can be demonstrated that quite a small shift in the proportion of mathematics graduates who enter teaching could bring about the desired change within a few years. An important policy issue in some countries is how this small but vital change can be brought about.

Apart from teachers and students, the other real resource inputs into education are building and equipment.

It is certainly the case that more efficient use of building resources offers tempting possibilities of resource saving. Numerous examples have been cited in various OECD reports during recent years:** double-shift working in Yugoslavia; the 20 % increase in British teacher-training students, with no increase in physical plant; consortia of universities in North America for sharing library and computer facilities; use of student hostels as tourist hostels in the summer in Scandinavia, and so on.

There are, however, reasons for supposing that the total savings achieved from such intensification of physical resource use may not be as great as originally expected. The annual rental value of capital is quite a small part of the total cost of education and there are often considerable

* The situation is clearly different in countries with high birth rates.

** *School Building Resources and their Effective Use*, OECD, 1966; *Development and Economy in Educational Building*, OECD, 1968, *School Building: International Exchange of Information on Research and Development Experience*, OECD, 1969.

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additional recurrent expenditures associated with over-intensive use of physical plant.

This rapid sketch of real resource inputs into education suggests the following issues and conclusions:

1. That the human resources used by the educational system are a small part of the total available human resources; any foreseeable increase over the next decade is unlikely, in real terms, to cause a serious burden in any OECD country.

2. That all possible measures should be taken to reduce student "wastage" and unnecessarily long courses, particularly in higher education.

3. That one way of lessening the real burden of educational expansion is to encourage the return of married women into teaching.

4. That, where possible, attempts should be made to use buildings and equipment more intensively, particularly by sharing large indivisible units such as libraries, computers, restaurants, sports and recreation facilities. That schools and universities should be encouraged to put their facilities to other uses during vacation periods and in the evenings.

5. That, nevertheless, it is necessary to watch closely any increases in recurrent expenditures that are incurred in using physical plant more intensively.

III. FINANCIAL RESOURCES

When concern is expressed about a possible restriction on the resources available for education expansion, such concern is very often with the financial arrangements that are being made. Many worries and questions are usually intermingled in this debate, and it may be useful to discuss them briefly under several headings:

i) the pressure for more financial resources;

ii) increasing constraints on available resources;

iii) the pressure for efficiency;

iv) the search for alternative sources of finance;

v) the argument that any financial arrangement should be equitable and encourage the expansion of educational opportunity.

i) *Pressures for increasing educational expenditure*

The growth in numbers shows few signs of abating. There is an increasingly important shift within total enrolments towards higher levels of education, the unit costs of which are higher. The internal dynamics of educational expansion itself, therefore, imply growing outlays of financial resources. But this is not all. It is felt increasingly that, within education, pre-primary, primary and lower secondary education should get more

attention and higher priority relative to the higher levels than they have had in the past. This tendency is related to the objective of equality of educational opportunity. Thus, not only will a larger proportion of pupils be in the higher and more expensive levels of education, but the unit costs of the lower levels may increase, because of a trend towards more intensive and individualized teaching techniques. Moreover, this observation can be generalized: while the emphasis of the past decade has been primarily on expansion in numbers, educational research and development have produced the possibility of many qualitative improvements which may require considerable resources to introduce.

ii) *Increasing constraints on resources*

The past decade has seen a more rapid rise in educational expenditures than any other period in history. There is a fear that the good times cannot last. These fears were reinforced by the slowing down of the rate of general economic growth in some Member countries in the late 1960s. The rapid increases in educational expenditures were made possible, in part, because of high rates of economic growth and a relative decline in defence expenditure. The second of these may now have reached the point where, short of a fundamental change in world conditions, it cannot be squeezed much further.

Increasing proportions of educational expenditures have come from public budgets. Further increases on the scale of the past decade can be made only by increasing the relative size of the public sector as a whole, a relative reduction in expenditure in other parts of the public sector, or from considerably increased private participation in the financing of education. Growth in the share of the private sector may be inhibited by the new trend, for general economic efficiency reasons, toward indirect taxation, which may have a tendency to be less progressive than direct income taxes. With respect to the possibility of relative reduction in other parts of the public budget, there is a growing feeling that health and other social service expenditures should have a higher priority than in recent years.

iii) *Efficiency*

Several of the factors involved in creating a higher level of efficiency were mentioned above under the heading of "real resources". These are concerned with the utilization of buildings and teachers, with the effective duration of studies, drop-outs, etc. It is not necessary to come back to this aspect of the problem. What is important here is that present methods of educational finance usually offer very little incentive for efficiency, either in an economic or a technological sense. During the recent very rapid expansion, educational technology has changed little, possibly less than any other economic sector. In the similar sectors of health and defence, in some ways at least, technological change has been rapid. Methods of financing should offer greater incentives to technological and economic efficiency. For instance, there are few examples of methods of financing that provide incentives for a school or university to reduce the number of staff for a given number of students, or to substitute capital inputs for labour.

iv) Alternative sources of finance and (v) the equity argument

Increased participation of private financing could take two forms: a greater contribution by students and their families towards the cost of their own education, and greater contribution by the industrial sector to the financing of education. Both of these possibilities are often viewed with some scepticism. Reasons for this scepticism are grounded in the fact that for several decades the main increases in educational expenditure have come from public budgets and that this has been a clearly desired trend, obtained in some countries after a long struggle. While additional contributions from elsewhere may be welcome, there are few reasons to suppose that the private sector would, in the future, spontaneously be willing to make resources available on anything like the necessary scale, or with anything like the necessary regularity and security to be other than a marginal addition to public expenditures. Any large-scale increase in contributions from industry might be made available on terms that are unacceptable to educationists, to students and their families, or to the national political authorities. Present concern by university students in many Member countries about the degree of industrial influence in university affairs is indicative of a wider unease. It is unlikely that industry will offer much support to the lower levels of education. The picture could change if a complete restructuring of post-compulsory schooling were to be introduced, along the lines of recent proposals for recurrent education.* This might create a very different relationship between industry and education than exists at present, which might also lead to mutually acceptable alternative financial arrangements. However, progress in this direction will probably be slow and for many years to come the bulk of educational finance will continue to come from the general pool of taxation.

It should be added that there are many people, particularly in universities, who are alarmed by the dominant role of public finance in the educational and research sectors. They consider that such a reliance by universities on a single source of finance can pose a threat to the academic freedom and independence without which no university can function properly. One of the big resource problems in some countries will be to devise systems of financing in which academic freedom is maintained, but in which there are safeguards on the use of public funds, and incentives to increase efficiency.

The other possible source of private finance is a greater contribution from students and their families. It is generally, though not universally, admitted that such a policy is practicable only for the higher levels of education. There are three types of reasons for advocating such a change:

i) Advocates of the investment approach sometimes claim that the present system of finance raises the private rate of return too much above the social rate, with the result that the demand for higher education is greater than economic efficiency warrants. If more of the costs were borne by individuals themselves, the private costs would rise towards the level of social costs and would probably cause demand to

* See Discussion Paper No. 1 on Goals and Targets of Educational Policy.

fall. This, in fact, is an argument that present methods of finance lead to too much expenditure on higher education.

ii) If private contributions to educational expenditure can be increased without any reduction in public expenditure, this would increase the total resources devoted to education. This is, interestingly, the reverse of the previous argument. It presupposes that the increased private cost would in no way affect the demand for education, and that public sector expenditures would in no way be affected by the availability of private finance.

iii) The most convincing argument in favour of a larger share of the cost being borne by individuals is that, whatever the externalities of education, a large part of the benefits accrue to the individual. As Background Reports No. 4 and No. 10 demonstrate, there is a social bias in educational opportunity in favour of upper socio-economic groups. Public expenditure thus represents a transfer of benefits, in effect very often a transfer from relatively poorer sections of society to richer, or potentially richer, people. This is, therefore, essentially an equity argument rather than an efficiency one, though it is often related to economic efficiency arguments on the grounds that it would give greater freedom of choice to students, and competition between the institutions for students would improve economic efficiency. The difficulty with this as an equity argument is that it is hard to devise a scheme of private financing that would not, in part at least, discourage students from poorer families, and thus contradict what appears to be one of the basic aims of educational policy in most OECD countries – equality of opportunity to benefit from the upward mobility, that education permits.

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KEYNOTE ADDRESS

by

Berislav Sĕfer
for the Yugoslav Federal Council for Education and Culture

We are again faced with the very complex and responsible task of discussing, at this Conference, the objectives of education and educational policy, and of exchanging opinions about what we should do during the 70s in this important economic and social sector. Today we have to consider the important field of resources for education.

On behalf of the Federal Council for Education (Ministry of Education and Culture of Yugoslavia) I have now the very difficult task of commenting on the problems arising in this field and to which we must all seek answers for the 70s, and of drawing attention to some of our views on the subject of today's discussions, with the hope of promoting a fruitful debate and achieving useful conclusions.

The central question, as stressed by the documentation of the Secretariat, is certainly the allocation of real resources for education. These real resources have been increasing very rapidly in the recent past, although usually at a slower rate than have financial resources.

Education, its organisation and the volume of its resources, at present entail a very vast operation. It is predominantly a labour-intensive activity; the teaching personnel, pupils and students therefore constitute the main form of engagement of real resources in education. This creates very complex problems of various kinds. At the time of a general and relatively rapid improvement in the standard of living, it both calls for and condiions, among other things, a constant redistribution of income in favour of education. However, this distribution covers no more than the growth in the standard of living, leaving unsolved such very important problems as the improvement of the ratio of the number of pupils to teachers. The teaching staff are still a decisive factor in determining qualitative and quantitative results in education, while other resources are still of an auxiliary nature, particularly equipment.

Obviously, it is not only the economic aspect which is concerned in the qualitative elements of education, although this is what is usually understood when speaking of quality. Sometimes matters are over-simplified and the problem of the rational utilization of human and material resources in education is regarded as concerning simply the economy which is trying to ensure that investments produce satisfactory results. From the economic point of view this question is very important, but at the same

time that of quality is a profound social problem. The purpose of the educational system should be to train men who will be able, at every level of education and at whatever moment they leave school, to integrate themselves into active life and take up appropriate jobs. As a rule, our present systems of education are characterized by the fact that a large number of pupils leave school without finishing their course on time or even without completing it. Thus, they enter active life without possessing the knowledge to qualify them for a specific type of work, in spite of their considerable number of years at school. This leads not only to economic waste but also to human and emotional loss. Consequently, the rational utilization of human resources in education is not only a question of economics but also of important social and human issues.

In this connection in the 70s we shall obviously have to devote much more attention to the problem of pupils and students as an input of the educational system. I wish to reiterate that this is an important economic question: i.e. the necessity of supporting a growing section of the population whose ever-increasing costs of education have to be covered for the time its members are not engaged in economic activity. But here, too, the position of pupils and students also has its social and political aspects, for in an extensively developed system of education, in which education is separated from employment, parts of the educational structure are not adjusted to meet the needs of the present structure of employment or expected changes, and this is bound to create important social and economic problems in the employment system, not forgetting the problems caused by those who leave school without getting their leaving certificates. The present system is oriented primarily towards the education of young people, with schooling ending at approximately twenty-three years of age, although the inefficacy of the system may sometimes mean an additional three or even four years. This means, in practical terms, that millions of young people in the prime of their life remain outside the labour market and social institutions for a long time, thus preventing them form exercising a decisive influence on policy or on progressive changes affecting social institutions.

In my view, the dilemma facing educational policy – quantity versus quality – is in fact, due mostly to the limited character and inefficient use of resources for education. It seems to us, however, that there are no economic or socio-political reasons impelling us to accept such a situation as a basis for determining our policies and the measures to be taken in the course of the decade which is before us.

Education is still expanding quantitatively in all countries in Europe, particularly in the less developed ones. Much still remains to be done to draw larger numbers of young people into education. However, present-day technological and social changes make it imperative that increasingly large numbers of adults should also be drawn into the process of adult education. Vast efforts must be made in the next decade to facilitate the readaptation of a large number of adults in many professions who will have to improve their skills or change their jobs, as a result of technological progress. If we do not succeed in this, we shall be exposed to serious

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social and political upheavals which, in the final analysis, will also affect economic trends. I think that programmed education for the readaptation of the employed will be one of the important objectives of educational policy during the coming decade. It is to be hoped that the development of permanent education in the latter part of this period will make readaptation easier and more acceptable.

On the other hand, there is an obvious need – from the point of view of both economic development and social progress – to improve considerably the quality of education, and in particular educational technology. First, the contents and structure of education must be modernized to reduce not only economic but also human waste.

If this is even approximately true, then the long-term development of education will make great demands on its real resources. If the development and utilization of educational resources continue as at present the differences between needs and possibilities will widen, and may call into question the quantitative, and particularly the qualitative, tasks facing education. I feel our foremost task is to rationally utilize existing resources, both human and material. To do so will mean that the system of financing and the organisation of education must be radically changed, and probably also the role of individual participants, whether teachers or taught.

However, the rational utilization of existing resources will not in itself prove sufficient to meet the needs resulting from the quantitative expansion of education and, in particular, from the improvement of its quality. A further redistribution of human and material resources in favour of education will certainly be necessary in the near future. In this sense, the statement of the Secretariat to the effect that there are no reliable signs of human resources becoming a factor limiting the development of education is probably exact; we may have to devote much more attention to this aspect, however, and considerably improve our knowledge of it. Numerous other fields will increasingly appear as competitors in the utilization of real resources in the coming period; for example, the new technology calls for the increased use of resources, and current social development (health, improvement of housing, modern social welfare etc.) also calls for a shift in its favour in the utilization of resources. These problems will become particularly acute in the less developed countries, and this is precisely the reason why we should know much more about the limits of utilization of real resources in education.

Educational development itself, however, will call for a redistribution of resources due not only to the quantitative expansion of education mentioned earlier but also to the fact that millions of people are concerned. Thus, concurrently with the improvement in the standard of living, a larger allocation of material resources will be required.

The technology of education must be redically changed and massive use made of existing equipment and techniques to improve the content, methods and quality of education. The introduction of up-to-date equipment into education calls for a larger expenditure of material resources, and consequently for the redistribution of both human and material resources. This is

one of the essential prerequisites for a substantive reorganisation of the whole educational process and its adaptation to the tasks and objectives of the coming period. Just as the reorganisation of education is largely conditioned by a further redistribution of real resources, so is the introduction of modern techniques and equipment into education – and their rational and successful use – dependent upon the changes effected in the organisation and methods of the educational system. These are two aspects of the same integral process.

The utilizing of real resources in education makes a radical change indispensable in the position of education in relation to the other spheres of life, particularly labour and in the system of financing. A much closer link between education and labour is also essential. Only in these circumstances can redistribution be carried out without a considerable disruption of the economy and society. Savings in the utilization of resources for education may also be achieved in this way. Is it rational or even possible, in a period of very rapid technological change, for the up-to-date equipment used in education always to be of the same quality as that used in other sectors of activity? Is it economically possible to use very expensive equipment for educational purposes only or should not equipment already existing in production or other spheres of activity be used more systematically and on a mass basis? I think the answer to these questions is yes, but this obviously calls for a radical change in the whole system and organisation of education. Therefore, from the point of view of resources, too, education should be linked to the process of labour in the forthcoming decade.

Any changes in the system of financing must not only result in larger allocation of real resources for education, but also ensure that these changes be made in such a manner as to stimulate economic and social development as a whole and not lead to conflict between education and other spheres of activity. Very complex questions thus arise. The method of financing depends on the objectives of education, on the types of social, economic or political structures and on the degree and nature of the development of a given country or, for instance, on the extent of the economic and social differences, on the sources of these differences, on the ways of earning income, and the like. The level and character of development is therefore a factor that exercises a considerable influence on methods of financing.

Changes in the methods and sources of financing should ensure, from both the economic and social points of view, the greater efficiency of education and more appropriate forms of allocation of resources to education. Some methods of financing education, which may seem to be very progressive and social-minded, do not allow education to act as the essential social factor preventing the transformation of social differences into social stratification. The budgetary financing of education often favours the development of the richer social *strata* at the expense of the poorer. The policy methods and financing of education should therefore be amended so as to lay down wider bases for participation – in both education and in financial policy – by all concerned: teachers, pupils and students, parents

and representatives of other spheres of activity for which education represents an investment in the human factor.

I think the time has come when we must decide whether social interests in education can continue to be represented exclusively through budgetary forms of financing or whether a solution must be found ensuring the direct participation in the financing of education of the activities concerned (production, health, public institutions, etc.) and the people employed in them. Similarly, the question arises of whether personal or family income should not be used for financing education – and there are arguments in favour of such a policy. However, their inclusion must never result in a narrowing of the social base of education, but should rather increase the possibilities for extending education so as to draw into it all age-groups and social structures. Consequently, the resources obtained from personal and family incomes probably cannot play a decisive role in these changes.

The solution to this problem, however, will ultimately depend on the degree of and reasons for social and economic differences in society. It is certain that countries in which property forms an essential part of income would have very different views on this subject from those of countries where work and its results are the only source of income and where social differences are relatively small.

Similarly, countries where there is mainly private ownership of the means of production will hold very different views from those where this ownership is mainly social, concerning the inclusion of production and other sectors of activity in the financing of education.

It seems to me, however, that there is a demand in all countries – concerning both the objectives of education and the utilization of resources – for a change in relationship between education, work and day-to-day living, and for the direct participation of other spheres of activity in the financing of education without budgetary intervention. This change in relationship should help overcome the division between education, other spheres of activity and day-to-day life, and encourage the building of a system of education which will be a permanent and lifetime process, because, under such conditions, new protagonists and factors concerned with education and its financing will come forward. An integral solution to these questions must obviously be found in the linking together of formulated objectives for education, changes in educational organisation, content and methods and in the participants in, and protagonists of, education.

In my country, we firmly believe that the system of financing education mainly through the intermediary of state fiscal instruments as at present, should be changed. In the past three years, we have taken the necessary steps to set up self-governing educational communities to organise and finance education and have made some progress in this respect. Although these communities still obtain their resources mainly from fiscal sources, a significant amount is also obtained from contracts with sectors of social activity requiring educated personnel. We feel that the next step should now be taken to make them autonomous, to organise them on the principle of association with groups in other sectors of activity with the objective of earning their income directly by means of contracts for specific

educational programmes. This method, in my opinion, is the correct one, since resources for education are thereby created through social channels and a stop is put to the socially and economically unacceptable practice of allocating educational resources through the budget. We believe that this method will lead to a genuine socialization of decision-making, and of the utilization of resources for education, and that resources will not only be increased but also used more rationally. This method is doubtless easier to apply in Yugoslavia where self-management relies on social (and not state) ownership of the means of production, and, by the very nature of social relations, embodies a large number of integrant elements. Present practice has confirmed that dissociation of the financing of education from the state budget has resulted in a more realistic appraisal of the resources required, in their more effective allocation, in much greater care being taken in respect of investments, etc., and in a greater interest being shown by the general public in all educational matters.

May I say finally that we clearly find ourselves in a period when every country will have to take appropriate steps to secure the resources necessary for the growth of education in the forthcoming decade. I think that planning in this field is now appearing in a new light and that its contents and methods must be subordinated to the new tasks facing us. Changes will also have to be made in the methods and sources of financing, as already mentioned. All this calls for intensive research in this field and for international co-operation and exchange of experience. Just as many educational principles will have to be reformulated, so our ideas on the question of resources will have to be adjusted. I am convinced that this Conference will help us to find correct solutions to the problems which still remain, thereby making it possible in the next decade for education to become an even more important factor in the promoting of individual and general progress in our countries.

III

ISSUES IN EDUCATIONAL STRUCTURES

Discussion Paper No. 3

by

George S. Papadopoulos
OECD Secretariat

The educational expansion of the last twenty years in the OECD countries has been accompanied by considerable organisational changes in the educational system, affecting both its general structure and configuration and the detailed relationships between its various levels, branches and institutions.* Questions of educational organisation and structures are in fact becoming increasingly important because, insofar as they influence the number and determine the distribution of the people who flow through the system, they are seen as major instruments by means of which the policy objectives and priorities set for the system can be achieved. Thus, one of the main policy concerns in education of the OECD countries in the post-war period has been how to devise educational structures, which, compatible with sound pedagogic concepts and theories of individual development, would facilitate the harmonious pursuit of the variety of objectives – social, economic, cultural and political – served by education in a modern society.

THE PATTERN OF GROWTH

By far the most important single propelling force behind this concern has been that of educational growth, with its twin focus on the global expansion of educational opportunity and its equalization. In the analysis of this expansion,** which, in absolute terms, has significantly affected all

* These developments are analysed in detail in Background Report No. 6: Changes in Secondary and Higher Education.

** See Background Report No. 1: Educational Expansion in OECD Countries since 1950.

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levels and branches of education, certain structural trends can be clearly discerned in the pattern of growth. Thus, the two levels with the highest rates of growth have been pre-school education and higher education, except in the Mediterranean Member countries where secondary education has been the fastest sector of growth. Secondary education also represents the highest overall increase in numbers for the OECD area as a whole, with practically full enrolment of the entire school population up to the age of 13-14 having been achieved in most Member countries (again with notable exceptions in the Mediterranean area), leading to a more than doubling of enrolments in upper secondary education between 1955 and 1965. Within higher education, the non-university sector, predominantly scientific and technical, has in most countries been growing faster than the university sector; no such trend is discernible as between general and technical/vocational education at the secondary level, where, in any case, the distinction between these two types of education is becoming increasingly blurred, at least as far as the lower cycle is concerned.

The pattern of past growth which thus emerges points to three areas as the main focus of potential growth in the future: pre-primary, upper secondary and higher, including adult education. There is growing evidence from most Member countries that structural changes in the educational system will, to an increasing extent, be used as policy instruments to influence the actual nature and direction of such growth.

STRUCTURAL CHANGES AND EDUCATIONAL OBJECTIVES

The role which changes in educational structures has already played in the process of transforming the traditional system of education, with its elitist goals, into the present-day one of mass education, has necessitated a re-definition of the specific objectives of each level of education and of its relation to other parts of the system. This, in turn, has led to the realization of the limitations of structural changes by themselves in furthering the democratization and other objectives; that, in fact, "structures", in a purely organisational form. can be but mere lables unless accompanied by the necessary pedagogical adjustments.

Additional force is given to this view by the survival in many countries of sharp historical dividing lines in the educational system – from a time when primary education was encyclopaedic and terminal in character, secondary was equated with academic education, higher was synonymous with university education, and technical and vocational training programmes held in second-rate esteem. This has made for the preservation of rigidities and discontinuities in the educational process, and these, in turn, have contributed to the perseverence of the socially biased selection which takes place within the educational system. The eradication of such discontinuities is perhaps the most important educational objective to be sought by structural changes, and one which could provide the common meeting ground with the broader objectives served by the educational system.

This does not mean that specific structural changes may not be more immediately, and significantly, related to specific objectives – e.g. comprehensive secondary education and equality of opportunity, short-cycle higher education and manpower needs, district colleges and regional development – but it does assume that to separate out exclusive aims for special parts of the educational system is unrealistic and that a flexible educational structure is an overriding condition for reconciling individual to social needs. The trends in this direction, and the issues which arise, are analysed below by reference to the various levels of the educational structure.

TRENDS AND ISSUES IN STRUCTURAL DEVELOPMENT

a) *Compulsory School Level*

So far, the structural impact of educational expansion has been most felt at the lower rungs of the educational ladder, resulting in the merging of primary education, which thus loses its terminal character, with lower secondary education, which is characterized by a distinct move away from its former selective character. These two levels combined now correspond more or less to the period of extended compulsory schooling which most Member countries have come to adopt as policy following the *de facto* situation created as a result of increased voluntary participation.

The restructuring of the educational system at this level has to be seen as part of the more general strategic issue of how to reconcile the three-fold purpose served by secondary education as a whole; i.e. the need (*a*) to provide all children with a common educational experience; (*b*) to meet the needs of society for middle-level manpower; (*c*) to prepare for higher education. In this process, the crucial problem is that of differentiation, i.e. the timing and orientation of the selection which is built into the system. Although the trend as reflected in the development of the comprehensive school, is for the gradual postponement of differentiation, on social, educational and political grounds, serious obstacles remain to its effective application at the level of the individual pupil; they derive mainly from the persistence of past traditions, the prestige of the arts and the humanities, the pre-eminence of literary skills as a test of aptitudes, and the low esteem in which technical and vocational education are still held. In addition, the lack of adequate information – in fact, ignorance as to the kind of information – on which choices by pupils, parents and teachers can be based, continues to be a main factor thwarting proper guidance and orientation.

The debate, therefore, is shifting from the problem of organisational differentiation, which has been pursued through structural reform, to the issue of pedagogical differentiation, to be determined by the needs of the children rather than by more general considerations of the requirements of upper secondary or post-secondary structures. This calls for structural chan-

ges of another order, at the level of the "class" concept and of the content and methods of teaching towards a greater individualization of school instruction, and would imply fundamental changes in the traditional role of the teacher.*

These problems are particularly relevant to the needs of children belonging to the socially disadvantaged groups. In their case, however, even the "best" pedagogical measures will remain ineffective unless these children are helped to overcome the great initial obstacles to their learning achievement. It is mainly this consideration – i.e. to secure the more effective educational participation of such children – reinforced by the recognition that the originating point of disparities is to be sought in the early years of learning, that lies behind the current efforts in many Member countries to extend pre-school education (of which a "dramatic" growth is foreseen in the 1970s)** and to enrich and diversify teaching programmes and methods at the primary level. So far, however, such measures have not proved very effective over time, and these children continue to present a most severe challenge to educational policy; they form part of the "low ability group", those who leave school at the end of compulsory schooling, often "over-aged" because of repeating, and consequently without having obtained any formal educational qualification or having benefited little from a prolonged but irrelevant general education, and badly prepared for active life.

b) *Problems of Upper Secondary Education*

The trend towards the consolidation of generalized secondary education, resulting from the rapid growth in the social demand for education, is already reflected in the enrolment increases in upper secondary education, which, as noted earlier, more than doubled between 1955 and 1965 in nearly all Member countries. For most European countries, the continuation of this trend over the next 10 years or so, towards full enrolment of the age-group up to 17–18 years, would, however, still imply an enormous expansion in total numbers. This will raise, in a very compelling way, the same need for structural transformation at this level as had occured in the past with the level below. The dilemma here will be all the sharper because of the difficulty – much more acute at this level than it had once been at the lower level – of integrating the academic (i.e. university entry preparation) and the technical/vocational (i.e. labour market entry preparation) functions served by upper secondary education which would be necessary in order to eliminate the socially biased selection which operates most dramatically at this level in the system. In other words, the policy issue here is how to meet rising individual demand for further study,

* For a discussion of this issue, in addition to Background Report No. 6 on "Changes in Secondary and Higher Education", see Report No. 3 on "Teaching Staff" and Report No. 7 on "Educational Technology".

** The growth of pre-school education can also be seen as a direct response to the growing numbers of working mothers. But the objectives of this level, though nowhere as yet clearly defined, go beyond those of a "baby-sitting" institution.

within limited resources and without depriving the economy of needed trained manpower.

Whether the compulsory school-leaving age is extended or not* it is clear that, under the pressure of voluntary enrolment, the period of common educational experience for the whole population – which is increasingly recognized as a necessary foundation for academic as well as for occupational and professional training – will gradually move upwards.** There will thus be a corresponding upgrading of post-compulsory school programmes, which will particularly affect those more vocationally oriented ones which have established themselves in increasing volume between the traditional secondary and higher levels, blurring already the distinction between higher technical education, teacher training and undergraduate education. The continuation of these trends would mean that ultimately these programmes will be assimilated into the system of post-secondary education.

c) *Towards a Comprehensive System of Post-Secondary Education*

Under the impetus of rapid social demand for higher education resulting from the generalization of secondary education and of changes in the structure of the labour force and the nature of skills required, post-secondary education represents the level where the most important structural changes of the next decade may be expected.

In addition to the pressures indicated above, this is the level at which the formal educational structure traditionally reaches into the adult school population – a population represented today by a student-body characterized not only by increased sophistication in terms of social, political and international experience, but also by earlier physiological maturity than were previous generations. It is this student body which, in the period of rapid educational expansion, has by and large in its choice of studies failed to comply with the forecasts of manpower planners for courses economically needed in society, while seeking at the same time to secure a share in the decision-making structures of the system and of its institutions.

Customarily, this system has been divided into two main sectors: one, strongly vocationally oriented and concerned primarily with technical and teacher training, is generally under closer governmental control than the second, or university, component which has enjoyed relative freedom in pursuing broader educational goals in teaching and research. Although there are signs already that the division between these "training" and "education" functions of higher education are breaking down – as broader educational goals are defined for the "vocational" institutions, and universities are becoming more flexible in the range and character of their courses – the system remains characterized essentially by sharp discontinuities

* This question no longer seems to be a major policy issue in most countries precisely because the increase in voluntary enrolment leads *de facto* to the same situation.

** At their Sixth Conference (May 1969), the European Ministers of Education stated as their view, in a formal Resolution "that the period of education should be extended to 11 or 12 years for all and that education be based on a broad common curriculum".

in which different institutional types create distinct "channels" into which students enter relatively early in their careers (the decisions often originating back into the secondary school), from which they cannot depart without losing credit for the work already done and in which there are marked distinctions of social, academic and professional status. The main need, therefore, will be for a more "comprehensive" approach to the post-secondary system as a whole, based on new structures designed to promote diversity and permitting much greater flexibility than has hitherto been possible.

There is already a trend in several systems to provide a limited freedom of movement, based on transferable credits for work done or on intermediate qualifications. This principle is now being more widely considered, since it offers the easiest way of moving students to the appropriate place in the system as their aptitudes and interests emerge, of reducing wasteful drop-out through mistaken choices earlier in the academic career, and of assimilating late developers, late entrants, part-timers, remote students and those re-entering formal studies for retraining and for post-work education in general. A further attraction of the principle of transferable credits is that it enables students to combine "learning blocks" from different sources and within different time-spans to meet their own specific needs, while institutions may feel more free to specialize in studies where they are strong rather than attempt to cover all the fields of study normally offered at, say, the university level. While there would be serious academic and practical obstacles to a "modular" structure of this kind, there can be little doubt that it would offer a rational means of achieving an overall unity in post-secondary education while preserving and developing the most valuable features of diversity.

The most difficult obstacle would arise from the need to find an adjusted role for the university in such a system – a need which has already been forcefully demonstrated by the serious contestation to which this part of the educational structure has been subjected for its failure to keep abreast of the process of social change. Whether one takes the planning viewpoint that in the long-run the distinction between university and non-university higher education will disappear or one assumes that the two sectors will continue to co-exist within an inter-locking "binary" system, the real problem remains how to define and set up a flexible division of labour to be distributed among the various institutions comprising the post-secondary sector. In either case, the traditional functions of the universities in higher learning and research will need not only to be safeguarded but institutionally reinforced because of the growing need to bring "science" and a "critical" function to bear on the increasingly complex problems of modern technological society. To perform this role, universities, or equivalent institutions, will have to develop a multi-disciplinary capacity in research and teaching, and the effective organisation of such capacity remains a major challenge ahead.

A further advantage of a post-secondary system based on a modular structure as indicated above would be that it could also provide th means and mechanisms which will be required by the implementation of the concept of recurrent education, currently discussed in a number of Member

countries. By spreading out the formal educational period over the later years of life, recurrent education would have serious implications not only for the structure, content and teaching methods of the present secondary and higher education systems but also for the organisation and practices of industrial firms and other employers who would see a significant portion of their personnel return to full-time education. In thus reducing the dichotomy between active life and education and in giving adults a "second chance" in education, recurrent education would help bring about greater occupational flexibility, social equality, individual satisfaction and understanding between generations. It could therefore represent a major alternative strategy in educational policy in the years to come with far-reaching consequences for the development of the educational system and of society as a whole.*

CONCLUSION

It has been assumed throughout this paper that the overall purpose towards which structural changes in education should be directed is that of making the broader objectives of education compatible with the development of the individual. The pedagogical component of such changes is therefore of paramount importance, as it is through the curriculum and methods of teaching that the educational process relates to the fulfilment of the individual and educational objectives are reconciled to social and economic needs. This process cannot take place unless educational structures, in their combined organisational and pedagogical attributes, are designed to remove "blind alleys" and "discontinuities" from the system. It follows that the various parts of the educational system cannot be planned in isolation and that structural change must be seen as part of the more general process of educational change, calling for the necessary research and development support as well as consultation and participation by all those involved, particularly teachers.

Within this general consideration, the principal areas of future policy concern are the following:

i) The development of *pre-school education*, for which clear objectives have yet to be established; the overriding educational consideration being the importance of professionally guided growth in these critical years of child development.

ii) The application, at primary and lower secondary levels, of pedagogical differentiation within a growing period of common educational experience, as the means by which the effectiveness of recently introduced structural changes, including the comprehensive school, can be given reality. This implies that at this level priority should now be

* On this broader context of the problem see Discussion Paper No. 1 on "Goals and Targets of Educational Policy".

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given to new approaches to the structure of teaching and the changing role of the teacher, dictated by the need to bring about greater individualization of learning.

iii) Equally important remains the problem of the low relevance of the education given at these levels for those pupils, for the most part emanating from the socially disadvantaged segments of the population, who leave the educational system on reaching the compulsory school-leaving age. This calls for a policy of positive discrimination in favour of all the disadvantaged children and would imply strategic changes in the allocation of educational resources in order to provide for the enrichment of the pre-school and compulsory school experience of such children, aiming at:

a) promoting their school achievement,

b) equipping them with marketable skills,

c) making it possible for them to benefit from a second chance of formal education after a period of work.

iv) The re-organisation of upper secondary education, which will probably be the crucial issue, as it will shape the entire post-secondary sector and affect the functioning of the entire educational system. The logic of structural development would point towards a comprehensive system of post-compulsory education, based on a modular structure of transferable credits and a flexible division of labour between various institutions, as indicated above. Within such a system, the feasibility, costs and benefits of the application of the concept of "recurrent" education, as a major breakthrough in educational strategy, deserves close study.

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KEYNOTE ADDRESS

by

T.R. Weaver, C.B.
Deputy Under-Secretary of State
Department of Education and Science, United Kingdom

Of the many countries represented here there can be few whose arrangements for the provision of education are less happily denoted by the word "structure" than is the case with us. If the dictionary is correct in defining structure as "that which is built or constructed", it cannot be said to describe our educational system. It must be regarded as an evolving and emergent organism whose orderly development will respond patiently to the social engineering of planners, policy-makers and administrators only if this is applied gently, sensitively, and with proper regard to the feelings and aspirations of the organism. The impulse for the great development, expansion and growing co-ordination of our educational institutions has come, as Professor Vaizey so wisely said, from the public at large and from those who work in them and direct them. The role of the central administration has hitherto been to encourage this development, to assess and draw attention to unmet social and individual needs, to provide the resources for meeting them, and to strengthen, adapt – and when necessary call into existence – the social organs or institutions through which the creative energies of the many partners in a highly decentralized system can make their maximum contribution to the whole enterprise. The comprehensive reform of our secondary schools has been the product of persuasion rather than force. It is what the people want and are going to have. In higher education, of which I am best qualified to speak, a nationally articulated system had its birth marked by the appointment, nearly ten years ago, of the Committee on Higher Education which has since been known, after its distinguished chairman, as the Robbins Committee. We are discussing goals, resources, structures, machinery and policy-planning. Listen, then, for the echo of these topics in the remit given to the Robbins Committee: "to review the pattern of full-time education in Great Britain, and in the light of national needs and resources to advise on what principles its long-term development should be based. In particular, to advise whether there should be any change in that pattern, whether any new types of institution are desirable and whether any modifications should be made in the present arrangements for planning and co-ordinating the development of the various types of institutions". For "principles" read "goals", for "arrangements" read "structure", and you have, within two sentences, the five issues before us. I hope, therefore, that if, by inadvertent modulation, I move out

of the key I have been allotted, you will not attribute it to tone deafness or a lack of concord. It will be because, in the context of my day-to-day experience as a civil servant concerned simultaneously with all five issues, I see them as the main notes in a single chord.

I start with a short review of recent developments in higher education in the UK because the administrator, having derived all the help he can get from theoretical analysis, must grapple with the facts in all their detail and complexity if he is to make anything happen.

The main themes of the Robbins Report were expansion, co-ordination and diversification, all with the object of meeting in good time the swiftly rising tide of social demand. The first target, set ten years ahead for for 1973, was for 219,000 students in the universities, 122,000 in colleges of education and 51,000 in technical colleges. These figures have been comfortably reached by the universities and colleges of education this year, and the technical colleges have surpassed them by more than 40,000, making a total higher education population of about 435,000, twice that in 1963.

In the process of achieving this expansion of more than 10 % per annum overall, the following are among the structural changes that have been introduced. The University Grants Committee, which allocates government funds to the universities, has been reinforced by a system of subject committees so that each university may know more precisely, on the basis of indicative planning, how best, in the light of national needs, it can make its specific contribution to the total university effort. Twelve colleges of advanced technology and similar institutions in Scotland have been given full university status as autonomous institutions.

A new university has been founded in Scotland. Meanwhile the seven new universities founded in the early 1960s have been rapidly developed, and their achievements have been fully documented in the case study prepared by Professor Perkin for the OECD with the title *New Universities in the United Kingdom*.

The student capacity of the colleges of education has been more than doubled, their average size has been greatly increased, and their productivity has been sharply enlarged by novel and sometimes unorthodox methods of internal reorganisation. They have entered into a closer relationship with the universities by the joint creation of a new Bachelor of Education degree, and their methods of government have been greatly liberalized.

The technical college sector – what we call the Further Education institutions – has seen the most rapid growth of all in the numbers of its advanced students, which have increased at an annual average rate of 16% – from 33,000 to over 90,000 in seven years. Four years ago a boost to this expansion was given by the Government's "Plan for Polytechnics and Other Colleges" – a plan to use some 60 of the leading technical colleges and colleges of commerce and art to create 30 powerful new higher education institutions. They are comprehensive academic communities catering for part-time as well as full-time students at all levels of higher education. This "structural" development well illustrates the thesis in Discussion Paper No. 5 that educational policy-planning tends to be determined by

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three inter-connected criteria: those related to social demand, to cost-benefit analysis and to manpower needs. Certainly each of these influences was at work here: there was seen to be a need for the creation of distinctive institutions of high status to complement the universities and to give special weight – not least through the organisation of industry-oriented sandwich courses -- to the application rather than the pursuit of knowledge. There was a need to concentrate in much fewer centres the very expensive resources required to sustain such communities; and there was a need vigorously to increase the provision of courses at the sub-professional level if the corps of higher technicians and related grades was to be built up to match the expansion of technological manpower.

The Government has promoted the creation by Royal Charter of the Council for National Academic Awards. The CNAA, as it is know, has the power to award degrees to students in the polytechnics and other further education institutions who have successfully pursued courses which it has approved as being of satisfactory standard. We have now brought it about, therefore, that the opportunity to obtain a degree is open to any student of the necessary standard irrespective of the type of institution he is attending. Indeed we have gone further. By the pioneering creation of the Open University an avenue to the award of a degree has been opened up even to students who attend no institution. It is "open" in every sense of the word: no formal qualifications, no testimonials are needed; there is no age bar (provided you are 21 or over), no sex bar, no residential bar. Part of the University's teaching will be by radio and television, part by correspondence course material, by home experimental kits, by programmed learning texts, by summer schools and by tuition in viewing and study centres. Here we can claim, without qualification, to have created a new structure of higher – or should I say recurrent – education?

The other changes in the structure of our educational arrangements that I have illustrated may, I suppose, be classed as examples of what Professor Sir Karl Popper described in "The Open Society" as piecemeal social engineering. You will be aware, however, that a variety of far more radical reforms of the structure, particularly of higher education, are being debated and canvassed at present in the United Kingdom. It is no part of the task of a civil servant to prophesy the outcome of these questionings, not least in the middle of a General Election. I can only report without comment some of the changes that are being proposed with one or more of the following objectives primarily in mind – the removal of barriers, the enlargement of opportunity, the broadening of curricula, the enhancement of co-ordination and the better use of resources. I have time very briefly to describe only a few. All these proposals share the common ground that the upthrust of the secondary schools, which will be further invigorated by the raising of the leaving age and by their progressive development on comprehensive principles, will at least double the demand for higher education over this decade without loss of quality in the students.

A Select Committee of the House of Commons has recommended that all higher education institutions should be financed in the same way, and that a central Higher Education Commission should be set up with statutory powers of co-ordination in many fields including student discipline, academic

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developments, careers advice, staff-student relations, research, and methods of teaching, with a general power to institute inquiries.

The Committee of Vice-Chancellors and Principals has within the last few days published a statement of their views, entitled "University Development in the 1970s", in which they envisage the possibility of enlarging the existing universities to increase their student population from 219,000, as it is now, to 400,000 by 1981: this would involve an average growth rate of over 5 % per annum compared with about 8 % per annum over the last seven years. To go beyond this figure, they say, would require the foundation of some new universities. The Vice-Chancellors examine – mainly to reject – a dozen or more potential reforms bearing on student admission policies, the structure of courses, the provision and use of residential and academic accommodation, and the achievement of savings in capital and recurrent costs. Their most radical suggestion is that longer-term study should be given to a review of the university course structure in such a way as to permit in some areas the provision of a basic two-year course leading to a qualification of less than honours degree standard.

The teachers in colleges of education, in common with many other people, are seeking ways of breaking down the isolation of the colleges by diversifying their courses and bringing them into closer relationship with universities and polytechnics. The National Union of Students proposes that the role of the local education authorities in the control of institutions should be greatly reduced, and that in each region all the institutions – universities, polytechnics, colleges of education, technical, commercial and art colleges – should be combined under single control to form a "polyversity". The UGC would be replaced by a Higher Education Commission charged with the task of co-ordinating the different sectors and integrating them horizontally. This represents but one variant of what might be described as the regional comprehensive theme.

The associations of local authorities in their turn are examining ways in which they can improve their co-ordinating control over the institutions for which they are responsible – by the establishment perhaps of grants committees for polytechnics and colleges of education somewhat on the model of the UGC.

I am sure that many of you recognize in your own country's situation some of the general features of the higher education scene in the United Kingdom today. The sheer process of expansion, in response to mounting demand, has by itself produced changes of quality, no less than of quantity, in our higher education institutions and in their relations with one another and with central and local government. The framework of financial support and control for the various sectors of higher education, developed by different historical processes in simpler and more stable situations than at present, is under some strain and subjected to constant challenge and criticism from outside.

All this indicates that the process of structural change in higher education is not yet near its end, even though it would be rash to predict its future course. What seems certain is that changes will be made in the future, as they have been in the recent past, not primarily to implement

theoretical criteria but in response to the strong and urgent currents which are surging through the whole fabric of our society, and to demands for greater equality of opportunity, more social justice, and a more humane, though not less efficient, management of the community's affairs. Against this background, questions about the best kind of structure to adopt for higher education – or for that matter any other sector of the education system – are clearly of great importance; but just as clearly they cannot be settled in isolation from the aims and interests of the community, and in particular those of both the teachers and the taught. I should like to illustrate four aspects of this interconnection.

The first is economic: it is that each community's system of education must be designed in relation not to a Utopian plan but to the costs which that community can sustain in terms of resources. It must, therefore, command public support in competition with what may well be regarded as priorities of equal or greater importance. We must adopt approaches and devise techniques which will make possible a systematic evaluation of alternative courses of action: in this field, perhaps more than in any other, the OECD can make a valuable contribution to the choice of priorities.

The second consideration is that, to the extent that courses pursued by students fail in the event to match the career opportunities open to them and the manpower needs of society, to that extent the students will be frustrated and society will be impoverished. Although the science of manpower planning is still embryonic, the educational provision made must not be inconsistent with what can be discovered to be national needs.

The third consideration is that, while the structure provides, so to speak, the ground plan for the building, what goes on in its many mansions is determined by the aims, traditions, knowledge, skills and devotion of the tens of thousands of teachers and researchers working in it. One test of the effectiveness of any form of organisation is, then, the extent to which it can release their energies and fulfil their purposes. They need conditions of freedom to pursue what William Temple called the true aims of education – the discipline of intelligence, the quickening of imagination, and the widening of sympathy.

The fourth and last is that, however skilfully and devotedly teachers teach, the ultimate educational test of their achievement is what their students learn. We know little about how human beings learn, but enough to be aware that successful learning, if it is to lead to human fulfilment, involves the engagement of the emotions and the imagination no less than of the intellect. Events the world over are showing that students are impatient of any educational experience of which they cannot see the relevance, both to their personal needs and aspirations and to the building of a more just and humane society. As adult members of an educational community they need to be given a sense of belonging: they call it participation. The same kind of involvement of young people in the process of their own education is to be seen, though under another name, in the curriculum of our primary schools and increasingly, thanks to the widespread innovatory activities of the Schools Council, in the re-structuring of curriculum courses in the secondary schools.

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The structure of the higher education system is thus likely to reflect at any given time a balance between conflicting tensions, both within the system itself and in society at large. Structural changes will often represent an adjustment to changes in the relative strengths of those tensions. This is the source of some of the major questions which confront us. Let met, to finish, pose some of these questions for discussion today.

How can we reconcile the legitimate aspirations of individual institutions towards autonomy, which is the freedom to determine their own goals, with the requirements that the system as a whole shall be responsive to the national interest, as manifested by the normal democratic processes?

How, within the system, are we to ensure sufficient diversity of routes, speeds and destinations to match the varied abilities and talents of our students, while avoiding an invidious grading of institutions in terms of prestige and popularity?

How can we balance the pressures to expand the system to accommodate the growing demand from young men and women qualified to profit from higher education, against the need to provide also for expansion and improvement elsewhere in the education service?

I have no doubt that every country represented here would like, if their resources allowed, to bring about a massive expansion and equalization of educational opportunity. But, given that resources have some limit, to which needs are we to give priority? If we cannot afford all the reforms we would like to achieve are we, for example, to put our money on the extension of nursery education, on compensatory provision, on reducing the size of primary school classes, on the diversification of secondary education, on the expansion of higher education, or on the provision of "recurrent" education – whatever meaning you attach to that term.

Whatever answers we give will have implications for structure. In the expansion of higher education, for example, are we to regard the university as the model to which all higher education institutions should conform; or should diversity of function be matched by diversity of structure, tailoring the organisation and machinery of control to suit the needs of each?

I hope I have now posed enough unanswerable questions to challenge the great learning and expertise of Professor Husén, who happily is here to advise us. Let me at once declare my own view that it will be a fruitless exercise for this Conference to attempt to arrange these or other reforms in a priority order to which all the countries represented here may be expected to assent. What seems to me unquestionable is that each country should face the discipline of deciding for itself which are the next goals to go for – and to go for them with the zeal and determination of a World Cup aspirant in Mexico.

IV

EDUCATIONAL PLANNING AND ITS RELATIONSHIP TO POLICY

Discussion Paper No. 5

by

the OECD Secretariat

I. INTRODUCTION

Since the Washington Conference on Economic Growth and Investment in Education (1961) there has been a rapid growth of educational planning in the Member countries. In the majority of Member countries educational planning units have now been established in ministries of education or in other official bodies. There has been a rapid development of planning methods and forecasting techniques, progress has been made on statistical definitions between Member countries, and in many of them an educational plan in one form or another now exists.

If the problems now facing educational planning are to be clearly analysed, the reasons for the latter's rapid growth must be understood. This is especially so since, *prima facie,* planning in the educational sector would appear to run against the traditional values and institutional framework of education – in that the dominant values and institutional concepts hinge around the idea of freedom and initiative in the schools themselves.

The central point is that, although educational systems function on the basis of individual choices, these choices are frustrated unless the system is efficient in the sense that it provides an effective path for the development of the individual through a series of institutions. In other words, the system in some sense must be planned. At the same time, there has been growing recognition that the educational system as a whole must respond to both economic and social needs. Governments are increasingly accepting the responsibility for organising the educational system in such a way that it meets needs such as equity and efficiency in economic terms, which can be met only by general policies reflected in the allocation of resources by the political authorities. This, too, leads in the direction of some measure of planning in the common interest.

A second central consideration is that in many countries it is the public which pays to a very large extent, and the public authorities

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(whether at central or local level) which have the responsibility for administering the system. This also implies a responsibility for the effective use and management of the resources placed at the disposal of the system by the community.

Finally, the educational system has certain special features which render it more amenable to planning than some other systems. Although it is an "open" system in the sense that it serves many purposes of society and is responsive to the creative development of individuals, its processes are largely internal to itself. Though this is less true now than in the past, because of the emergence of many educational activities outside the system itself, the general principle still applies.

For all these reasons it becomes more and more difficult to have a policy (i.e. in the sense of making choices about the purposes, development and administration of the system) without having planning. This is fundamentally why the planning of educational systems has developed so rapidly in recent years, and why it is now becoming necessary to talk about policy/planning as opposed to planning *tout court*, as the essential process involved.

However, the emergence of planning came at a particular point in the history of education, namely at a time when the essential question was quantitative expansion of the system. The consequence of this is that planning has developed up to now so as to deal with the question "how fast should we expand?". This is a question which inevitably leads to forecasting needs, and to incorporating these forecasts in a plan of quantitative expansion. The statistical basis for such forecasting thus becomes an inescapable point of departure. These are the essential questions and developments around which educational planning in the 1960s has grown. They also explain why educational planning has so far been dominated by technical and methodological discussions, largely related to the forecasting of global needs for expansion and their incorporation into the educational plan.

It is no criticism of educational planning to date to recognize that the questions to be answered today, as they have been stated in the documents for the Paris Conference on Policies for Educational Growth, are very different from those outlined above. As stated in the Overview, the broad problems to which educational planning must address itself are how to manage and control the growth process already in progress.

Against this background the paper now sets out:

i) a critique of educational planning in the 1960s;

ii) an analysis of planning needs for the 1970s.*

* The following Background Reports prepared for the Conference are of direct relevance to the issues taken up in this paper:

No. 5. Educational Policies, Plans and Forecasts during the Nineteen-Sixties and Seventies.

No. 8. Educational Planning Methods.

No. 9. The Role of Analysis in Educational Planning.

No. 12. Alternative Educational Futures in the United States and in Europe: Methods, Issues and Policy Relevance (particularly the Introductory Chapter).

II. EDUCATIONAL PLANNING EXPERIENCE DURING THE 1960s

During the period under consideration basically three methods have been developed. Each of these methods was meant to provide guidelines and criteria for the future development of the educational system, particularly of its quantitative aspects. They can be classified as follows:

i) "social demand" criteria, meant to satisfy the increasing demand for education expressed by pupils and their parents. It was generally thought that, by giving priority to the satisfaction of private and social demand for education, group disparities in educational participation could be reduced by the same token;*

ii) criteria related to cost-benefit analysis, or rate-of-return of investments in education. The ultimate purpose of this approach is to optimize the allocation of resources thereby comparing the costs and benefits of alternative investment opportunities;

iii) manpower criteria; forecasts of the occupational and educational structures of the labour force have been advanced to orient the quantitative development and structure of enrolments.

The need for a synthesis of these three methods, which, in appearance at least, are scarcely easy to reconcile, has been increasingly felt both in the academic world and, in more empirical terms, by those responsible for educational policy/planning in the Member countries, who recognize the tenuous links between any one of these methods and actual decision-making in education.

Without exaggeration, the development of the educational system may be said to have been more or less autonomous, and educational planning to have been concerned only with forecasting educational expansion without influencing it. (This is what may be called "reactive planning".) By and large, this development was mainly in line with the goal on which social demand is based, namely satisfying the demand for education of the pupils and their parents. Concerning the role of the other methods, in practice the cost-benefit approach was almost never elaborated by educational planners as an instrument in the decision-making process on the macro-institutional level. Similarly, with the growing recognition that many of the benefits of education are difficult to quantify in economic terms, an increasingly sceptical attitude has arisen towards rates-of-return results for decision-making. As mentioned in Discussion Paper No. 1, the main purpose of the manpower criteria has been to provide the "objective" argument in favour of allocating additional resources to the educational sector.

It is not surprising, therefore, that the debate around these three methods** has seemed to some to have relatively little policy relevance, a view which was further reinforced by the "mutually exclusive" kind of

* For a more detailed discussion on this specific point, see Discussion Paper No. 1 on Goals and Targets of Educational Policy.

** For a more detailed discussion, see Background Reports No. 5 and No. 8.

reasoning on the part of the enthusiastic advocates of each of these approaches. However, the debate has gone far beyond the small circles of planning experts: for or against selection for university entrance, for or against private financing of education. These examples, which are still being considered, are an indication of the fact that the debate engendered in this way was not a mere "academic" dispute. Another illustration of the potential practical relevance of the debate is the fact that, whetever the relative merits of these approaches, there will always be a labour market, i.e. the place where the supply of the degree and diploma holders coming from educational institutions will come up against the demand from the economic system, both being forced to adapt one way or another. In most Member countries until now, or until recently, upward shifts in the skill structure of the labour force propelled by economic and technological progress have developed parallel with the rapid expansion of education and the consequent increase in output of highly qualified personnel, engendered mainly by individual aspirations for continued education. This has meant that, in the main, graduates from the higher levels of education have been able to find jobs at a level in line with their expectations, which in turn are determined by traditional educational-occupational relationships.

One possible future consequence of the quasi-autonomous development of the educational system may well be a gradual drop in the occupational choice of graduates. In other words, more and more graduates may have to enter occupations for which so far lower educational qualifications were the norm. This is not necessarily a bad thing as long as this "over-investment in education" is acceptable on social grounds, and the individual person is ready to accept the career and other consequences; for it is also possible that the spread of education to all layers of society, with the consequent possibility of a downward switch in occupational choices of graduates, may cause a drop in the relative financial advantages that go with a degree or diploma (by reducing salary differences according to level of qualification). This again is not necessarily an undesirable development – some have wished for such a trend for decades. The fact is that so far salary differences by level of qualification have remained remarkably stable, and the impact of education in income distribution seems to be ambiguous.* However, it remains to be seen how far the situation will develop if the future rate of increase in the number of graduates were to be far in excess of the absorptive capacity of the economy – given present occupation-education relationships.

The above is also an illustration of the crucial point that during the 1960s it has often been difficult to see how educational planning has served its purpose as a rationalization technique for educational policy. It has been equally difficult to detect what the future consequences and implications are of many of the educational decisions actually taken, because they have rarely been accompanied by an analysis of consequences. There are several reasons which help to explain this discrepancy between educational planning and decision-making.

* See Background Report No. 11: "Education and Distribution of Income: Some Exploratory Forays".

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First, educational planning concentrates mainly on a few easily quantifiable variables such as total enrolments, teachers, expenditures, and therefore was concerned with the scale of education rather than with its structure, content, method and outlook. Secondly, the variables on which educational planners focused their attention were not always the most useful for policy purposes. This has often resulted in educational planning and forecast procedures of limited practical value. Not enough attention was given to singling out those "instrument variables" which are more or less under the control of decision-making.

Within these limitations, however, the establishment of educational planning as a process, and its institutionalization, can in most of the OECD countries be viewed as the major accomplishment of the past decade in this field. There has been a sustained and growing interest in educational planning in the different countries, which has become explicit, for example, in the long series of country educational planning meetings and in the country educational policy and planning programme of OECD dating back to 1962, focused on the preparation and critique of comprehensive country planning reports and at examining and developing analytical techniques in this field.

In summary, educational planning the 1960s remained partial, reactive, and frequently limited to the quantification of "social demand" and manpower criteria. These are definitely some of the reasons for the lack of a significant relationship between educational planning and policy, as already mentioned. But it must also be strongly stressed that policy-makers frequently did not know themselves what to get out of educational planning. They tended to call on planning units only when faced with a problem for which data were needed, or, for example, when faced with a parliamentary question. The planners were rarely called in to discuss long-term goals and policy options or assigned tasks to propose alternative strategies with their implications and consequences.

III. PLANNING FOR THE 1970s

In this section of the paper an attempt will be made to define some of the most important features of planning that may need attention by Member countries in the 1970s.

The Process of Policy and Planning

If planning is to serve decision-making more effectively, the most important need is to make progress in planning as an organised process within the context of total educational policy and administration. The accent in the 1960s on techniques should therefore shift to an emphasis on the effective organisation of planning.

It seems clear that such a planning process will take root more easily in those administrations which are so organised that there is a clear

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relationship between objectives and the deployment and management of resources to achieve such objectives. It is probable that organisational changes to achieve this, or at least as the basis for budgetary and management control (e.g. PPB and similar systems), will be important, creating the environment in which planning can function effectively. In such an overall system, the implementation of policy decisions and the administration and management arrangements to achieve them are the responsibility of the total organisation. This is the basic reason why it seems meaningless to talk of "implementing" an educational plan by the planning group itself. Rather, the planning group should be oriented towards the decision-making process at the highest level of responsibility, and essentially concerned with the preparation of policy alternatives for examination at the political and policy levels. This, of course, means that the location of a planning function at a high level in the organisational structure is of fundamental importance.

In these relationships between planning, policy and administration (as decision-making dimensions), a distinction can be made between the functional and institutional aspects. The function of the planning is: the development of innovative policy decisions and of the decisions to achieve policy objectives, the latter being a step in the transformation of policy decisions into routine decisions ("decisions upon decisions"). The function of the administration is to make routine decisions, once these matters have been settled – in other words, implementation. The function of the policy is to ensure the readiness of the polity to take the innovative decisions, and to guarantee the readiness of the administration to make the routine decisions.

If we turn now to the institutional aspects, the different functions between the various groups involved in the decision-making process clearly overlap. The same persons or groups may be, simultaneously or in turn, engaged in all these functions. In other words, the problem is one of effective roles and functions in the total organisation.

Strategic Decisions

A closer relationship between planning and policy implies a shift in emphasis from the preparation of a global plan to the preparation of specific strategic decisions which affect the future of the whole educational system. The first reason for this is, of course, that the policy arrangements in many countries do not provide for decisions in terms of a single global plan. And even in countries which do have a global plan, many policy decisions are necessarily taken outside the framework of such a plan. At least the unique pre-occupation of educational planning with the preparation of global plans is no longer justified.

The specific relationships between strategic decisions and a plan will, of course, depend on broader arrangements within government for the allocation of resources on a long-term and medium-term basis and, in particular, on the existence of general economic planning.

Strategic decisions on education should be increasingly related to long-term goals and such goals will very often be formulated or related to a

wider governmental context. It will therefore be necessary to develop approaches to educational planning which take full account of the needs for relating it to long-term governmental planning in general, and to the long-term objectives of the educational system itself.

This implies new approaches and methods from those practised in the past.

*Planning for "Alternative Educational Futures"**

Educational forecasts in the 1960s concentrated mainly on demographic and economic variables, and they assumed that the future would not substantially differ from the past, except within the limits prescribed by some of the endogenous variables selected for the analysis. They did not lead educational planners and policy-makers to think systematically about alternative future patterns of society, alternative educational goals for the future alternative ways of reaching these goals, or about complex qualitative aspects of education. This is one reason for the difficulties of clear formulation of educational policy, although it is evident that other reasons of a political and technical character are just as, if not more, important.

If educational policy is to put more emphasis on the definition and analysis of long-term goals as a basis for strategic decisions, it will be necessary to establish procedures and create structures for discussing and searching for consensus. Organisational characteristics of the decision-making process should change so as to secure (*i*) a high degree of participation of persons and groups who are directly concerned with educational policy-planning-administration, and (*ii*) a high degree of "transparency", in decisions which have less to do with who participates in the process than with what procedure is followed.

Whereas educational planning of the 1960s has been (*i*) "quantitative"; (*ii*) reactive; and (*iii*) partial in its approach, educational planning for the 1970s should become (*i*) programmatic (as opposed to reactive); and (*ii*) comprehensive. In this context, the comprehensiveness of planning has to be seen in two respects: (*a*) it must not only take into account the "quantitative" domain, but must also deal with psychological, pedagogical and cultural domains (i.e. "qualitative planning"), which presupposes more knowledge of the functioning of the whole educational process; and (*b*) educational planning is just one element in policies concerning the future development of the economy and society, which means that it must explicitly take into account the intricate relationships between the educational sector and other sectors of society.

A consequence of the fact that the planning approaches of the 1960s assumed a highly simplified picture of both the decision-making and goal-seeking process was that communication and co-operation between policy, planning and administration was oversimplified. The assumption was that the consequences of planning would flow, as if the system behaved as an

* This section relies heavily on the Introductory Chapter to Background Report No. 12. See also Background Report No. 5 and Discussion Paper No. 4.

automatic control process between planning interventions, without conflicts and without feedbacks. A more realistic planning approach would be based on "rolling" planning, feedback mechanisms for continuous evaluation, and in consequence linking the different phases and levels of the decision-making process.

However, such an approach would also require new analytical methods. A structural model of the educational system would need to be related to the decision-making process and to cope with the relationship between the two. Thus, a more complex set of relationships would require different techniques (e.g. the use of heuristic programming, (machine) simulation techniques, adaptive control theory, cost-effectiveness analysis, sensitivity analysis). Moreover, new integrative methods would need to be applied to the analysis of decision-making processes, e.g. simulation games, Delphi techniques, cross-impact techniques.

Information Systems for Educational Planning

Obviously the proposed educational planning approach requires different data. During the 1960s, the OECD country planning authorities established large data frameworks relevant to their educational systems. In the main these were "bureaucratic" data, i.e. the kind of data required for the purposes of government budgets. To these were added economic, demographic and some social data according to their availability and to the time and resources available for their collection. Such data were used for forecasting studies.

The educational planners of the 1970s will need information systems to meet routine operational needs, to explore alternative long-term strategies and goals prior to strategic decisions about innovation, to monitor and evaluate policy and programme implementation, and to service the flow of information between policy, planning and administration.

Educational Data Banks, Indicators and Accounts

Educational planning, policy-making and administration need ready access to data on the internal transactions of the system, its output in social and economic terms, and the environment in which it operates. As mentioned above, these needs go far beyond those so far recognized, and there is an urgent need for a redefinition of the information needs of educational policy and planning, to organise such information in terms of modern information processing technology, and to exchange data between the different branches of government concerned, and at international level.

A new set of indicators of the performance of the educational system needs to be developed. Without such indicators, the allocation of resources to the educational sector and within it cannot be put on a rational basis.

A major effort is needed to get a more accurate picture of educational expenditures and unit costs, and to incorporate these and other indicators in a set of accounts which would enable more effective control over the allocation and management of resources.

The Link with Qualitative Planning

Discussion Paper No. 4 concerns mechanisms for qualitative planning as part of the total picture of government machinery for educational change. Obviously, the question of the relationship with qualitative planning will be one of the central issues in the 1970s.

Broadly speaking, we may say that the policy/planning mechanism should be a major partner in the definition of research and development needs, but that the undertaking of research and development should be through separate mechanisms. However, planning groups may need to be able to take a more positive role in research and development work needed for the purposes of planning as such (e.g. new analytical tools, account framework, output indicators, etc.)

Equally, some machinery must be found for feeding back research and development results into planning operations. This seems to imply the development of some common mechanisms between policy/planning and research related to the qualitative aspects of educational planning.

IV. AGENDA FOR THE DISCUSSION

If the analysis carried out in several Background Reports of the Conference is correct, the relationship between the educational planning activities of the 1960s on the one hand and educational policy formulation and administration on the other, has left much to be desired. Has this been due to technical reasons, political reasons, to different conceptions of what planning is all about, or simply to the inevitable growing pains of this new endeavour is most countries?

It has also been argued in the present paper that educational planning has remained too much of a "technical" exercise, as opposed to involving the participation of representatives of those involved in the decision-making process. This point is related to the previous one, but goes beyond it in the sense that more persons and groups may have to be involved in both the planning and policy formulation aspects than has been customary to date.

The paper argues that, without an active and clear policy, no real or realistic planning is possible, and vice versa. This is related among other things to what has been said in Discussion Paper No. 1 about goal definition and goal analysis. Do the suggestions with respect to organisational arrangements to further the goal-seeking process in Discussion Paper No. 4 fit in with present plans in Member countries, and how could they be related to the planning and policy formulation efforts?

Educational planning in the 1970s will also have to put more emphasis on participation, transparency and flexibility. This may very well mean making a sharper distinction between what is possible to undertake at the highest level of decision-making and what should be left to the lower

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levels. At the higher level, educational planning should be concerned with working out global educational strategies to meet defined targets, within specified goal-structures, and taking the constraints of the environment into account. These global strategies should leave enough room and incentive for initiatives at the lower levels of decision-making, and particularly at the level of the school and the institution (cf. Discussion Paper No. 4). Such a flexible scheme may, of course, create difficult problems of co-ordination.

KEYNOTE ADDRESS

by

Isao Amagi
Vice-Minister of Education, Japan

Although there are many disputes over the terms "planning" and "policy", and many definitions have been proposed, I myself understand that "planning" is to recognize the actual situation of education as objectively as possible, and to see what conditions are necessary and what methods must be used to attain a goal. "Policy", as I understand the term, means to decide what action the government should take in order to bring reality closer to the targets set out by planning. The decision is normally based on a certain scale of values and on a forecast of the probable effect of the decision.

Thus, the key to determining whether planning is good or not is the degree of understanding of present conditions. The factors which affect educational growth should be clearly defined and their interrelationships correctly analysed. It should be noted here, however, that planning is not a process through which to determine what goals are desirable. Planning is nothing more than pointing out the ways to reach goals; it is the role of planning to show which goal is easier and which goals is more difficult to achieve.

The criterion by which to judge whether a policy is good or not is the results it brings about. If a political decision results in bringing the actual situation closer to the targets, it should be regarded as successful. In other words, a policy has to be effective in inducing desirable changes.

The value selected by the policy becomes the target of planning. Without the target set out by the policy, the planning would be a blind process; at the same time, a policy without planning is no more than unrealistic inspiration and there is danger that the policy-makers may act in their own interests. The function of planning is to maintain a realistic and effective continuity of educational growth, while that of policy-making is to initiate action for new goals, not necessarily bound to contemporary situations. These two functions are contrary, but at the same time they are complementary.

In the history of educational policy and planning I do not think that there has been any policy-making entirely detached from planning. Nevertheless, no policy has been based on perfect planning because none of us has succeded in identifying all the factors which affect educational growth. That is because educational growth reflects only a part of the changes in

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our complex society, and our knowledge concerning the dynamics of the changes of overall human society is limited.

Let me illustrate this statement using Japan's experience of the past 100 years as an example. In Japan the modern educational system was started in 1872. Education was the major element that promoted Japan's modernization. The reason why education expanded so rapidly and remarkably at that time was because the Government adopted the policy of encouraging people to regard education as being advantageous to uplifting the social status of the individual. Thus, incentives were given to the people to pursue education, and education, in consequence, promoted the nation's modernization. The aspirations of the people were stimulated, and social and economic development began to take form as a result of the policy. It has, on the other hand, become the cause of problems arising from the idea that education is more or less a means for achieving purely materialistic and practical ends.

At the end of Word War II, Japan was engaged in another educational reform on a vast scale in order to try to establish a new ideal society. Democratization of education was deemed to be the supreme aim at that time, and the result was a rapid and vast expansion of education. Now, we are faced with the qualitative problems which have grown with quantitative development. The policy of reform begun in 1948 was not adopted as so-called educational planning, with rational analysis and projection, but simply because it was considered the only way to give the nation hope of breaking away from the poverty and disaster brought about by the surrender.

After World War II the Japanese population increased greatly for a certain time. In 1965 the children born at the time of the baby-boom reached the age for higher education. It became a great problem as to how to deal with the increased number of applicants for higher education institutions. The manpower demand for higher education did not seem to expand as rapidly. The teaching resources of universities would not be sufficient for years to come. National finance seemed unable to meet an extensive growth of education. There were many difficulties involved in expanding higher education at that stage of national development. However, the Government of Japan did adopt a policy of expanding higher education, judging that a response to the social pressure resulting from the people's enthusiasm for advanced study would be the necessary foundation for socio-economic development in the future. Sacrifice of quality was deemed an inevitable consequence. Today, quantitative demand has eased and the time has come to improve the quality of higher education.

In all events, popular enthusiasm and efforts for educational development contributed much in bringing about the three educational developments I have mentioned.

The case stated above may be considered as a special case due to Japan's exceptional characteristics of development. It can however be generalized that policy is not necessarily coped with by rational planning. The Japanese case also indicates that development is not necessarily brought about in a process of harmonized planning; and it explains that in a certain situation social stress can function as a generating power for development.

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Many socio-economic factors have been utilized to promote education in Japan. Nowadays Japanese society has reached a stage where educational development should be considered in the context of socio-economic development.

The major role of educational planning at this stage of development is to examine the problem of productivity in the educational system, considering social need and manpower demands as two main factors determining the quality and quantity of education. Efforts are also being made to find the form of ideal society at which educational growth should aim. A big question here is what rational reason will justify giving a high priority to education among various other national policies, now education is no longer the means of overcoming poverty and a backward life. What kind of educational policy is needed to give people the incentive to lead a more human life in an affluent society? How can educational planning meet these difficult problems? Our planning technique at the present stage still remains one of "social statics" which deals with the balance of various conditions. We are hoping for the establishment of a methodology based on "social dynamics" by which the process and acceleration of change may be understood.

I should also like to mention the relationship between planning and freedom in education. Whatever policy or planning might be adopted, if it does not inspire the activities of educators based on duty-consciousness it will not be successful. But, at the same time, modern society is too complicated. The "grass root" activities of educators alone will not be able to carry out the desirable development of education. Needless to say, educational development depends on broad social support, and a national consensus on the policy is absolutely necessary. But there must be someone to raise the question, or to initiate the development. It is the role of the government, I think, to take action which invites a national consensus. Better non-governmental proposals and movements may also be expected to grow as a counter-action to governmental ones. This is the place for the government to play its role and to show leadership in a democratic society.

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KEYNOTE ADDRESS

by

the Hon. R.C. Clark

Minister of Education, Province of Alberta, Canada

By way of introduction, and to set the perspective from which I speak, I should like to begin by noting just two of the important aspects of that context. The first is historical and/or constitutional and has to do with the complexities of policy-making in a multi-jurisdictional, federated system; the second is more ideological and attitudinal and has to do with the way Canadians tend, instinctively, to react to the notion of professional planning in the process of policy development.

As you know, Canada is a federation of semi-autonomous provinces. I say "semi-autonomous" because, constitutionally, certain powers are vested in the Provinces, others in the Federal Government. Education happens to be one matter of provincial jurisdiction. So, although we have, for example, a Federal Department of Manpower, the extent to which this Department influences schools and colleges becomes a matter for negotiation; though we have a Federal Department of Health and Welfare, the extent to which our educational system may be influenced by national welfare policies is similarly a matter for negotiation; and although we have a Federal Department of State, the extent to which educational systems may be influenced by national social goals is, again, a matter for negotiation.

In short, Canada does not have a national education policy or a national structure for educational planning. Instead, it has ten provincial policies and ten corresponding structures for planning. (The Province of Quebec, for example, is perhaps the most distinctive of our provincial systems.) I note this situation because, though it is thought by some observers to be a serious handicap to systematic development, it may in fact be a strength, for in the past it has forced us into collegial modes of social, economic and educational planning; in the future it may well provide the basis for the sort of decentralized, non-authoritarian, consortium-type planning systems which democratic societies are likely to require. (One such high-level consortium, a Council of Ministers of Education, now functions with the purpose of co-ordinating planning across Canada).

The second important aspect of the Canadian context – in terms of my task here – is a rather strong ideological predisposition relevant to planning: an insistence that the individual remain, to the greatest extent possible, master of his own destiny. Because of this attitude, we tend to resist the notion of the master plan as being a set of state-determined targets and strategies that deprives people of elbow room; and we tend to resist author-

itative centralization and co-ordination as being a device likely to curb the inventiveness and creativity of educational systems and institutions.

In short, planning and planners are viewed with a certain amount of suspicion in Canada. [Plans never become our bibles; planners seldom our prophets]. Again, I may be admitting to a weakness; but I suspect I may be identifying a source of potential strength. For, as I have considered the background documents for this Conference, I have detected what I consider to be a decided tendency among Member countries to move away from centralized master-planning and rigid target-setting and to attempt, instead, the creation of mechanisms for planning imaginative improvements in the quality of the educational enterprise and the ways in which that enterprise can best place itself in the service of the society of which it is a part.

Given these circumstances, the question might be posed: do Canadians plan? The answer is yes, indeed we do; but we view planning as a process and not as the establishment of master-plans. We also agree with the major proposition of Discussion Paper No. 5 – namely that planning ought to be more carefully and closely integrated with the process of social and educational policy-development. But, again, we view planning strictly as the informant to the policy process and not as its dictator.

Let me proceed now to address some of the specific issues identified in the paper, and perhaps a few issues not identified in the paper.

Discussion Paper No. 5 points out one major shortcoming in the educational planning activity: its failure, generally speaking, to become incorporated into what we like to think of as a rational planning/policy-making/decision-making process. The paper elaborates and documents this point by identifying a large number of flaws or gaps in this sought-after process, and then poses the question of what might be done to make scientific planning an integral part of the social and political process of policy-making.

We address this question, and attempt to clarify some of the issues identified in the Discussion Paper, by examining planning in the context of three of its major dimensions:

i) its social, political and cultural ecology;

ii) its operational and inter-jurisdictional structures; and

iii) its scientific and technological base.

I. THE ECOLOGY OF EDUCATIONAL PLANNING

The Discussion Paper identifies several major disfunctional conditions in the environment in which planning typically takes place: (*i*) a lack of interaction between planners and policy-makers; (*ii*) a lack of interaction between planners and decision-makers; (*iii*) a lack of articulation between goal-seeking activities and strategic planning activities; (*iv*) disparities between broad social goals and specific educational purposes; (*v*) a lack of articulation between the formal institutions of education and non-formal

opportunities for learning; (*vi*) an unwillingness on the part of policy-makers to pay attention to long-range forecasts; and so on.

I wish I were able to offer viable solutions to this set of problems. I make no such pretensions. However, I do offer for your reaction a few ideas which we believe have promise, ideas which are just now receiving serious attention in our country.

The Concept of Exploratory Planning

Exploratory planning is, in essence, the application of scientific – some would say, pseudo-scientific – methods to the analyses of the cultural, social and political ecology of planning. It is a device for forecasting alternative social futures; for confronting the existing socio-political system with the need to choose from among possible alternative futures; and for forcing society, on the basis of these choices, to set goals and targets for its educational systems. Put another way, exploratory planning is a device for involving policy-makers and society in general in those aspects of educational policy establishment in which they ought to be involved. Not only are such techniques essential for the bridging of the gap between planning and policy, they are imperative for the protection of the democratio process in the science of planning. Planners ignore the sociological and political aspects of planning at their extreme peril. [Incidentally, I include the students themselves as subjects of exploratory planning; they are, after all, the most important group to be considered in the process of goal-setting].

The Concept of Planning and Development

Planners shed as many tears over the reaction – or failure to react – on the part of administrators and practitioners as they do over the unresponsiveness of policy-makers. This is not at all surprising. Planners are, essentially, scientists. Hence, they inevitably jolt practitioners with startling new knowledge, with incredible new alternatives, and with unanticipated new needs. Practitioners, being mere mortals, respond defensively and resistively to the unanticipated new need, the startling new knowledge or the incredible new alternative.

We believe, therefore, that a "development phase" must be built into the planning-implementation process in precisely the same way as it is typically built into the research and development process. Planning is really a mechanism for organisational self-renewal, and self-renewal inevitably involves changes in the behaviour of individuals, changes in approaches to tasks, and changes in people's views of the world. It is for these reasons that development becomes essential in the implementation of plans or, if you like, in linking planning to practice, planners to practitioners.

Trend Projection vs. Long-Range Forecasting

Planners frequently fail to realize that once certain trends get under way and gain momentum they tend to become politically, socially, or economically irreversible. So, frequently, these planners are outraged by the

fact that proposed interventions – even those which grow out of rigourous scientific enquiries – are rejected or held in abeyance by policy-makers. But politicians know very well that to intervene prematurely is to invite resistance, that to intervene belatedly is to miss opportunity; so they do not act as expected.

Timing, therefore, must be viewed as an important element in planning and policy change. To deal with this element, planners must be engaged not only in long-range forecasting but also in short- and medium-range trend projection. By viewing one in the light of the other the planner can greatly improve his sense of timing in the act of policy intervention.

The Concept of Systems Planning

As has been pointed out many times during this Conference, educational planning in the past has been largely "incremental" rather than "allocative", and has survived largely because of an unchallenged assumption that education is "good" – in any form and in all possible amounts – for economic if for no other reasons.

In the next generation of planning many traditional assumptions and approaches are likely to be seriously challenged. "Incrementalism" will surely give way to rational processes of allocation, and narrow educational planning will surely give way to broader social services planning or to human resources development planning. These developments and others will, no doubt, enforce more comprehensive approaches to planning – in terms of goal-setting, priority fixing, resource allocation, and so on.

We believe that the concept of "systems planning" is a viable one in the light of impending increases in the components of the planning venture. Indeed, we believe that it is time to begin tooling-up for the conduct of planning on a comprehensive multi-service basis. This move will place a severe strain on our planning capabilities; it will call for significant advances in the technologies of planning. But that is our challenge to our researchers.

II. STRUCTURES FOR PLANNING

The Discussion Paper identifies a series of issues related to structures for planning: (*i*) conflict among systems and institutions; (*ii*) competing demands for co-ordination and for freedom; and (*iii*) conflicting desires for comprehensiveness, specialization and diversity in the educational system. In view of the time limits, we choose not to develop these issues in any detail, for we believe that variations in structures, according to national circumstances, are to be expected. However, two ideas may be worthy of consideration.

The Planning Agency as Advisory to Policy

As a matter of principle, planners ought not to have the power to impose plans [any more than generals ought to have the power to declare war]. Instead, planners ought to be viewed as advisors, as providers of information, as anticipators of the future, and as creators of alternative strategies.

The Planning Organisation as a "Consortium"

The need for planning is too often, we suspect, interpreted as a need for greater centralization, for enforced co-ordination and for increased control. But this conclusion is not necessarily logical. Indeed, there is evidence to suggest that centralized, authoritative planning stifles organisational creativity and inventiveness. Much of what is gained through co-ordinated effort is lost through induced inertia.

We think, therefore, that structures ought to be collaborative rather than authoritative. The *Consortium of Planning Systems* commends itself to us. [Canada's Council of Ministers is an example of a loosely-knit consortium for educational planning. Our Delegation to this Conference illustrates our approach to the co-operative organisation].

III. THE TECHNOLOGIES OF PLANNING

The Discussion Paper poses another series of issues which, in general, reflect the inability of the science and technology of planning to keep up with the demands of policy-makers. It is noted, for example, that life-long or recurrent education has been, by and large, ignored by planners; that information systems developed by planners are not adequate for policy-makers; that planners remain unable to find the educational correlates of "the good life"; and so on. These charges are clearly valid and the implications are just as clear: the science and technologies of planning must be pushed to higher and higher levels of excellence; planning-based research must be encouraged and supported; new approaches to the policy and planning endeavour must be conceived.

In short, the science of planning – if indeed it is a science – is a crude and primitive one. The next generation of planning will require considerably more sophistication and rigour than in our methods. May I commend to our scientists and technologists such tasks as the following:

1. *The development of new social, economic, and educational indicators* – indicators of the "quality of life", indicators of "socio-economic status" of societies, indicators of "social health", and so on.

2. *The development of new and more concise indices* – a concise "price index" to be applied to all social services, an "index of educational opportunity" to help us sharpen our targets and assess our achievements; and so on.

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3. *The development of more precise techniques for evaluation* – for the assessment of innovations, for the assessement of practices and plans, and so on.

4. *The development of useful and comprehensive information systems* – including banks of readily retrievable data, banks of data which are linked together intra-nationally and, perhaps, internationally.

5. *The development of comprehensive simulated models of educational systems* – to aid in the systematization of planning and to help us predict the likely consequences of proposed interventions in the ongoing system.

6. *Further refinement of the techniques of cost-benefit, cost-effectiveness and cost-performance analyses* – and a careful integration of these techniques and others into the applied technologies of PPBS [which I note from the documentation is now in use in fewer than a half-dozen of the Member states of OECD. We use PPBS and think that it has considerable potential as a planning tool].

7. *Further refinement of the methodologies of trend analyses and long-range forecasting* – and the techniques for incorporating these methods into the process of planning and policy-making.

I conclude with a brief re-statement of the major theme of this presentation. In the future, as we move into the second generation of educational planning, it will be necessary for us to push vigorously forward on a number of fronts.

First, it may be necessary for us to re-examine some of our most cherished traditional assumptions. We tend to assume, for example, that education is a place, a building, an organisation. Were we to assume, instead, that education is a process that goes on everywhere, then our minds might be freed to think more imaginatively about how to plan for that process.

Second, it will be necessary to advance the science and technologies of planning beyond their present stage of development.

Third, it will be necessary to develop more comprehensive concepts of educational planning; to incorporate the qualitative aspects with the quantitative; to project the past and present into the future; and to integrate the science of planning more carefully with the art of social, economic and educational policy-making.

V

GOVERNMENT MACHINERY AND THE ADMINISTRATION OF EDUCATIONAL CHANGE

Discussion Paper No. 4

by

the OECD Secretariat

INTRODUCTION

The Member countries are now faced with the unprecedented problem of combining a process of rapid educational expansion with the re-shaping of the entire educational system. One of the major problems – if not the major problem – of the 1970s will be how to manage and control this process. It seems unlikely that this can be achieved without changes in the arrangements for administering education.

Discussion Papers Nos. 1 and 3 have set out the needs and circumstances that must be coped with. From these papers, three general points are clear. The process of change :

i) must respond to complex goals which are those of society at large in addition to those of the educational systems as such;

ii) involves two inter-related processes, referred to in the "Overview" as "the normal political process" and the "grass roots process" of decision-making in democratic societies; and

iii) deals with innovations of very different kinds, the common label hiding more than it reveals.

These different levels of "goals", of "process" and of "innovation" imply a complex, de-centralized and politically-sensitive process for which there is no single or simple answer. Changes in goals, content, means, structure, attitudes and behaviour are not only slow processes, but sometimes painful and difficult ones. This is due not only to psychological and sociological problems, but also to the difficulty of arranging participation in the decision-making structures. To a considerable extent, the problem of

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change is a problem of democratization. Who is participating, not only in the change process, but in the decision-making process? At which level are decisions taken, and by whom? What are the decisions that can be taken at a decentralized level? What part do teachers, students and parents play in this process? The problem of new mechanisms for educational administration is not mainly one of efficient methods, but of values, vested interests, and participation. How is it possible to build mechanisms for innovation that fully take into account the question of democratic decision-making on the one hand and necessary efficiency on the other?

To get closer to an answer to this problem we have to define more specifically what we mean by innovation. The term covers many activities which in different countries are dealt with at very different levels.

i) *Structural Innovations.* These innovations (e.g. comprehensive secondary schools) are developments which change the role of the school in society. They influence national economy, recruitment patterns, wages, etc. Decisions and the power to carry them out should reside at the national level, taking the formal democratic institutions such as parliament into the decision-making process.

ii) *Curriculum Development and Educational Technology.* These terms are conceived very broadly and include content, teaching learning style, evaluation and teacher/student relationships. Innovations in this field are developed very differently in different Member countries, but all have the potential to change the schools drastically. It is also clear that some of these innovations are difficult to plan and to carry to completion due to the need for new guidelines (the knowledge explosion international developments, etc.), the need for specialized staff to implement them, and the need for resources to do and apply development work. On the other hand, it is obvious that many important changes in this field start in the classroom and do not require much in the way of expertise, money or guidelines.

It is possible to take a pragmatic attitude towards the question of the level at which these innovations should be carried out, and to evolve some general guidelines:

i) because of the need for national and international qualifications for university courses, the content and level of achievement is often defined in general terms at national levels;

ii) innovations which require the development of great resources, especially in the field of educational technology, should be carried out at a fairly centralized level (e.g. Schools Councils, National Councils for Innovation in Education, etc.);

iii) innovations which can be worked out at local level involving co-operation with teachers, should be made at this level. Specialists such as educational technologists, evaluation experts, etc. could be consulted during the development work;

iv) innovations which deal mainly with a school's internal conditions (teacher/student relationships, teacher co-operation, etc.) should be encouraged as a co-operative activity where teachers, students and

parents can contribute. In this case, local development centres should be able to assist in the process.

As can be seen from the above general outline, decisions should be made and the innovation work should be done by the group which is influenced by it. This may mean the whole nation, but it may also mean just one class of students and their teacher.

This approach to the problem involves three assumptions which should be made explicit. First, that it is worth paying some price in terms of national uniformity in the interest of creativity in the schools. Second, that schools will deteriorate nevertheless if they do not keep up with national developments and needs. Finally, that if the schools themselves are to develop, they must engage themselves in active innovative work.

Main Principles

Integrated Policy. It seems clear that policies for innovation have to be integrated and global, and have to take into consideration broad social, cultural, individual, economic and political goals. Trends in cotemporary education and in educational innovation, and the alternatives which may arise, are common in nature throughout the western world. Therefore both global national goals and information about international development are necessary for the formulation of policy.

Long-Term Policy. Educational systems are big and complicated systems which are likely to change only slowly. Even well-planned innovations of the last two decades have taken considerable time for continuous revision and change. Policies for innovation should therefore be long-term.

System-Oriented Policy. Since educational systems are necessarily more or less integrated, all major changes have to be oriented towards the total system. Far too many innovations have been aimed at only very limited sectors of the system without taking others into consideration. The CERI Secretariat is working on educational technology as an approach to system changes, in which the educational system is seen as a socio-technical system with integrated processes, and in which a change in any one process influences others.

Continuous Reform. Innovation in education can no longer consist of sporadic changes. Continuous changes are necessary to keep up with changes and demands of society, and demands from individuals. Innovations, therefore, have to be institutionalized. This will necessitate not only development and research activities directed to development objectives, but also a system of implementation and arrangements for dissemination of new ideas, research results and educational materials.

Democratic decision-Making. Even more important than what was said above is that the innovation process should be democratic. No elite group, no single planning group or group of administrators should be solely responsible for innovation policy. Participation at all levels in the system is a necessity if the new educational system is to operate as an innovative system.

NEW FUNCTIONS AND MECHANISMS FOR SCHOOL ADMINISTRATION

These new developments in education raise the fundamental question of the processes and machinery through which educational change can be planned and controlled in the next decade. The "Overview" analyse the processes involved in Section D, from which it emerges that three main processes are involved: policy/planning, development/innovation, and science/social change. It is obvious that these processes are complex and involve different forms of intervention by governments, and different relationships between central authorities, local and regional authorities and the school system itself. Consequently, there is no one solution in terms of governmental machinery, but obviously national authorities cannot escape the necessity for new machinery to deal with these problems.

The following alternatives are a first outline of proposals put forward as a basis for discussion.

Policy and Planning

If the general conclusions stated above are to be operationally meaningful, they imply an organisational process which effectively combines policy, planning, research and development and administration down to the most basic levels (i.e. the schools).

Taking the planning function as a point of departure, the "Overview" argues that planning:

i) should not and cannot seek to "implement" plans – this is a matter of decision-making taking into consideration all the complexities of the educational system;

ii) should be more closely linked with policy-making than in the past – though not confused with policy, which is essentially the political part of the process;

iii) must be closely linked to, though not control, the research and development process – in particular influencing priorities in development programmes and related research, and systematically using the results of research and development for the planning process itself; and

iv) must in some way reflect the reality that an educational plan, and major policy decisions taken within its general framework, must be based on goals determined by the various groups in the system, and implemented through the administrative system.

The implications of these general requirements in terms of organisation will be very different in different countries and no point would be served in trying to formulate a single organisational model (these questions are discussed in more detail in Discussion Paper No. 5).

There is, however, one new requirement to which the Conference may wish to address itself:

The concept of planning is changing to become global, integrated and long-term – educational, social, cultural, individual, political and economic

needs are taken into consideration. This means, of course, that educational planning should be co-ordinated with other governmental planning, and in close relationship to qualitative educational planning, in an attempt to relate itself effectively to long-term goals.

Decisions about the long-term future should, of course, be taken at the political level in parliament. The process which leads to the choice between alternatives, however, should be as open as possible and should take different opinions into account. Planning in the educational sector has an important role to play in this process.

This implies either the establishment of an independent group concerned with the analysis of alternative futures in the central educational administration, or the strengthening of the existing planning group to carry out this function. In addition, at least in the bigger countries, it seems advisable to encourage the creation of independent institutions to explore the implications of future social and economic trends for education, and the role that education could play in the process of social change.

However, it is apparent that such work in the educational sector cannot succeed unless it is related to a general governmental function for "alternative futures" research or long-term planning. In relatively small countries, the best way of doing this is probably to organise one governmental institute for the purpose. In bigger countries, on the other hand, there is likely to be a more complex set of institutions, depending on the general approach to the organisation of planning, inter-departmental co-ordination and science policy.

Development and Innovation

The Paris Conference will no doubt stress the need to combine policies for expansion of education with the qualitative planning of the innovation process. This is a consequence of the fact that any major changes in the educational system have to be planned in a systematic way, taking structure, organisation, curriculum, teaching/learning systems, teacher education attitudes and economic benefits into account. New techniques for qualitative planning are in consequence necessary, as is a well-defined R and D process which is integrated with the total innovation policy and strategy.

The planning of innovations has to take the implementation, dissemination, and maintenance of innovations into account. This is costly and in general weakly developed today.

Qualitative planning also depends on a process of participation, where all levels of the system are involved depending on the type of innovation and its consequences elsewhere in the system.

The principal requirements for such a development/innovation process are set out in "Overview", as follows:

i) clear responsibility of the central educational authorities for drawing up a development programme or strategy;

ii) establishment of a central, co-ordinating innovation mechanism, possibly with executive responsibilities;

iii) development programmes located in, or close to, the educational system itself, with tailored organisational arrangements according to the development and diffusion needs of the specific programmes;

iv) specialist institutions to provide services to development programmes, and

v) a diffusion network, base on a service of field advisers.

Broadly speaking, there are three alternative approaches to establishing these functions in a systematic way, although a wide range of specific options exists, given the differing political and administration arrangements in the Member countries. The various possibilities are discussed below under the following headings:

i) Executive or Co-ordinating Agency for Educational Innovation;

ii) Central Board of Education;

iii) Councils for Innovation in Schools (or similar mechanisms).

The optimum solution in a given country will depend in the first instance on the role and structure of the central educational authority, usually the ministry of education.

i) Executive or Co-ordinating Agency for Educational Innovation

The "Overview" has raised the general question of whether, during a period of rapid educational change, some de-centralization of educational administration is not *prima facie* necessary. The arguments in favour of such de-centralization in the field of educational innovation are doubly clear for all the reasons outlined above.

One solution might thus lie in the establishment of an executive or co-ordinating agency for educational innovation, operating outside but linked to central administration, particularly if it is given executive powers (e.g. the National Council for Educational Innovation in Norway). Its work would be based on a development programme, agreed upon at the political level, in the parliament or in the ministry.

Functions. The Innovation Agency should be responsible for the total change process. This does not mean that the agency should bring about the innovation process itself. Delegation of power to local and regional level is essential, as is delegation of research and development work to universities, etc.

If the innovation agency does not have executive powers, its responsibility for co-ordinating development activities should be exercised through the allocation of resources and evaluation of programmes, general supervision of the development programme, and overall responsibility for articulating the total change process.

Decentralization. Decisions regarding both specific innovations, and the innovation process itself should be made at different levels in the educational system itself. The responsibility of the innovation agency is to find the right level of decision-making for particular innovations. The question is to find the level of decision which is nearest to the actual problem, and which at the same time gives the best chance of success.

Thus, the establishment of an innovation agency is not a matter of centralization, but rather one method of flexible decision-making. As described in the general outline, it is essential for the innovation agency to build local development centres. These centres should have great freedom to set up locally based innovation programmes, but should also be able to work as the "change agency" for major innovations developed at a more central level.

Co-operation with Central and Local Administrations. However successful and innovation agency may be in organising the development process, implementation and dissemination of R and D results to the schools must involve central and local administrations. Teacher retraining, teacher education, full-scale materials production, multi-media information and local services to maintain the change process are all involved. Indeed, the continuing pace of change is likely to modify considerably the traditional concept of controlling schools on the part of central and local administrations. They must adjust to the fact that the schools will be changing their curricula, methods, equipment and technology so fast as to be engaged in a continuing innovation process. The new role towards which they should evolve is the stimulation and evaluation of this process, and thereby the development of a continuous process of "rolling reform".

ii) Central Board of Education

If the central administration is already organised outside the Ministry in a professional Office of Education (or National Board of Education), as part of a policy of de-centralizing administrative functions, this organisation could itself build up an organisation for the total process of innovation. In all likelihood, this central board would need the following mechanisms (assuming that general planning is done in the Ministry itself or at intergovernmental level:

1. *Department for the co-ordination of R and D work*
   This role would mainly be the same as defined in alternative *i*). The degree of executive power versus co ordination would in both alternatives be a question of national policy.
2. *Department for implementation and dissemination*
   The traditional offices for the different school types should be responsible for the implementation, dissemination, maintenance and rolling reform as in alternative *i*).
3. *Innovation information centre*
   An information network both on national and international levels should be built into the structure to ensure the optimal utilization of knowledge. The centre would act as a service-unit for both central and local developments.

This second alternative could operate mainly with the same structure at the local level as the outline in alternative *i*).

iii) Councils for Innovation in Schools (or similar mechanisms)

Either of the above alternatives will need to be adjusted to the differing circumstances of Member countries. This is partly a question of how the

process is understood and partly a question of national priorities and policy. If the innovation process is mainly seen as a research, development and dissemination process the answer will be different from if it is regarded as a social interaction process or a linkage process. If the national policy in education is centralized, the strategies for innovation will be different from those in a highly decentralized country. Thus, the alternatives for strategies and mechanisms are many.

In most Member countries some innovations will always have to be decided at governmental level (e.g. structural changes). In this case the alternatives outlined above for central administration are possible solutions.

In all Member countries local schools and individual teachers are responsible for some innovations. But in some countries the local school is the starting point for nearly all innovations, and in consequence most decisions can be taken in the individual school. Any co-ordinating agency in these circumstances would have more limited functions than those outlined above, and usually take the form of a loose, co-ordinating council for innovation in schools.

Science and Social Change

The mechanisms proposed above would have clear responsibility for supporting research related to development objectives. This would include basic research when necessary.

The "Overview" makes it clear that fundamental research plays another role in social policy: it leads to the restatement of problems. As such, it should be supported quite apart from the development/innovation process, through a separate machanism. The purpose is a different one, with different criteria of choice, even if the two interact.

This mechanism may also be in the ministry of education, or in the science policy authority, or in a specialized agency responsible for fundamental research. The problem of relating fundamental research and "mission-oriented" research is precisely the same as in other fields of public policy, and calls for a solution within the general arrangements for science policy in a particular country.

The Training of Educational Managers

The proposals made above for new functions and arrangements in an educational administration for a period of rapid change will lead to new professional roles for teachers, administrators, innovators, research workers and field advisers. In fact, this will reflect the professionalizati[illegible] he teaching profession as referred to in the "Overview", sinc[illegible]ans that in the future a teacher's career may have many different paths.

This implies quite new needs for the education and retraining of educational managers than in the past. Such a task could be organised through national institutes for educational administration and management, which could be established at university graduate level, possibly related to university departments of education, or to schools of management.

Part Three

I. CONCLUSIONS

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CONCLUSIONS

INTRODUCTION

The OECD Conference on Policies for Educational Growth met in Paris on 3rd to 5th June 1970, with the participation of Ministers and senior officials from the OECD Member countries, under the Chairmanship of M. Pierre Billecocq, the French Secretary of State for Education, and the Vice-Chairmanship of Mr. I. Carlsson, Minister of Education in Sweden, and Mr. I. Amagi, Vice-Minister of Education for Japan. The Conference was opened by Mr. Emile van Lennep, Secretary-General of the Organisation for Economic Co-operation and Development.

The Conference based its discussions on a detailed analysis of the process of educational growth in the 1960s, prepared by the OECD Secretariat, and noted that the educational sector had grown rapidly in the past decade, in response to economic and social needs, expenditure on education having risen considerably faster than gross national product in most OECD countries.

In this context, they noted that the OECD Ministerial Council had met two weeks earlier and set as a collective growth objective for the decade 1970–1980 an increase in the real national product in the OECD area as a whole of the order of 65 %. Equally important, the Ministers had stressed that growth is not an end in itself, but an instrument for creating better conditions of life, and had emphasized the need to pay increased attention to the qualitative aspects of growth and to the formulation of policies with respect to broad economic and social choices involved in the allocation of resources.

The Conference agreed that the allocation of resources to and within the educational sector should reflect the trends outlined by the OECD Ministerial Council, and in particular the need to give more attention to the qualitative aspects of economic growth.

Educational Growth Prospects in the 1970s

The Conference noted that the targets for educational growth which had been discussed at the Washington Conference on Economic Growth

and Investment in Education, in 1961, had in general terms been accomplished, and significantly exceeded in the case of higher education.

The structure of this growth of education in the last decade was such that in many Member countries a high proportion of the age-group in primary and secondary education was now enrolled. In these countries, the quantitative growth of primary and secondary education is bound to slow down in future years as a consequence of the past achievements, and because of demographic trends. However, the generalization of secondary education, which has now been largely achieved, will give rise to an increasing demand for higher education in the 1970s, and one of the major problems of policy will be how to respond both to it and to an expected expansion of education for adults.

In the OECD developing countries the growth of secondary education will continue to be necessary as part of their economic and social development, and economic development will at the same time call for a high rate of growth in higher education. The problems of these countries in allocating their resources to educational expansion are likely, in consequence, to be especially severe.

In general, the Conference agreed that in the 1970s policies should seek to combine quantitative growth with the fundamental qualitative changes necessary for the achievement of educational goals and the better use of resources in relation to such goals.

In approaching the problems of educational growth and change in the next decade, the Conference agreed to the following guidelines for policy:

i) In the coming decade, the objectives of educational growth should be examined in their inter-relationships with the more general goals of society and the economy.

ii) Goals for educational growth and change in the 1970s should be made more explicit, and where possible indicators which would measure the performance of the educational system, both in relation to educational goals as such and the contribution of education to the wider social and economic objectives, should be established.

iii) The establishment of such goals and indicators will assist the effective allocation of resources both to and within the educational sector, and assist Member countries to make the choices between the alternative paths now open for the continued growth and change of the educational system.

iv) It will also assist the more effective use and management of the real and financial resources which are now becoming an overriding necessity in the educational sector, because of the large proportion of total national resources now engaged in the educational sector of the OECD Member countries.

v) It will also provide an indispensable starting point for the development of necessary qualitative changes, which must be a priority in the coming decade, leading to more effective learning processes in schools and universities, and for the establishment of priorities in research and development work to improve such processes.

vi) Such qualitative changes can be greatly facilitated by the efficient organisation of the planning and innovation process, for which governments must accept a clear responsibility, according to their national circumstances, but which must also involve the full participation of all parties concerned.

On the basis of these guidelines, the Conference formulated the following more specific conclusions in relation to the goals for educational progress, the needs and use of resources, the necessary structural changes in educational systems, the machinery needed for organising the planning and innovation process and the special problems of the developing Member countries.

I. GOALS AND TARGETS OF EDUCATIONAL POLICY

There was general agreement about the importance of clear goal formulation and definition for the purpose of judging the allocation of resources to and within the educational sector. Criteria for judging the effectiveness of education must change according to the goals, and cannot, therefore, be discussed in isolation from these goals.

The Conference recognized that the setting of goals at the national level must reflect a variety of values, aspirations and objectives existing in the community. The process by which goals are set is therefore as important as the nature of the goals that are set. This process includes both the process of public discussion and the more specialized processes through which these goals are given operational form.

In this context the Conference stressed that in all Member countries a wide range of societal goals govern educational policy, as shown in the background material prepared for the Conference. The implication of this is that, to be useful, any analysis which is intended as a basis for policy-making must deal simultaneously with all relevant goals. Partial analysis, related to only one goal, may easily become more misleading than helpful in the search for optimal policy decisions.

Furthermore, attention should be drawn to the intimate relationship between educational goals and certain approaches which have been used in educational planning and policy analysis. In all such analyses, the goals that are implied should be stated explicitly.

Underlying the evolving objectives of OECD Member countries in the rapidly expanding field of education, there are certain fundamental aims which are as permanent as they are far-reaching. These are: to afford to every boy and girl, to every man and woman, the best possible opportunity to discover and to achieve, no matter at what stage of his development or career, his or her full potentialities for self-fulfilment, not as an individual over against society, not as a social or economic unit subordinated to society, but as a "person-in-community" with all that this implies for

rationality and human sympathy; to do this in such a way as to offset so far as possible cultural and environmental handicaps to equality of achievement; to do it in such a way as to make the most equitable and productive use of limited resources, by reference to a clear scale of priorities; to do it in such a way as to make the best possible match between the aspirations of each person and the manpower needs of the community; and, last but not least, to do it in such a way as to give through the social organisms we adopt or adapt, the greatest possible scope to the participants in the educational process – the teachers, the students, the parents, the administrators, the public at large and those who represent them – to contribute their energy, their wisdom, their ideals and their skills to the success of this complex social and political enterprise.

The Conference recognized that in the 1960s a vast expansion of education has taken place, directed to furthering these aims in the Member countries. They also recognized, however, that a number of clear limitations in progress towards these goals had emerged in the Conference discussions, and that efforts to overcome these limitations should be made in the 1970s.

In particular, the Conference noted the widespread existence of the following problems:

i) That equality of educational opportunity between social classes has not yet been reached to the extent implicit in the above statement of principles. If this problem is to be solved, the concept of educational opportunity will have to be broadened so as to include also educational achievement.

ii) That there are definite signs of an increasing need to relate schools and colleges more effectively to the surrounding local, national and international community, and to the institutions in the wider society which are playing an ever-growing role in the education of children and adults.

iii) Adjustments in methods and curricula have frequently been too slow to permit education to play its proper role in relation to fundamental social, economic and cultural changes.

iv) That the growing demand of individuals to participate more fully in the educational activities in which they are involved has not yet been adequately reflected in changes of teaching methods and school organisation.

Bearing in mind the need to make rapid progress in the 1970s to overcome these difficulties, the Conference referred to a number of new directions for educational policy, which if pursued would constitute, in many Member countries, major steps towards desired goals. Steps in these directions would all contribute to the essential policy objectives of equal opportunity and individual self-fulfilment set out in the above statement of principles.

i) Fundamental changes in curricula to help promote the new and and emerging attitudes and understanding necessary if the child and

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young adult is to be an active and effective member of the rapidly changing modern society.

ii) Individualization of teaching methods wherever this will promote both learning and greater equality of educational opportunity, whilst at the same time avoiding the social isolation of pupils.

iii) The increasing development of "recurrent education" in the post-compulsory stages of the educational system, so as to make it easier for those students who wish to do so to obtain the education they want in recurrent periods throughout life rather than following immediately after completion of their secondary education and to help in avoiding irrevocable decisions in a person's life being determined by the pattern of the educational and social system rather than by the needs and wishes of the individual.

The necessity of making explicit and defining educational goals has already been mentioned; this becomes obviously more important, and more difficult, during a period of shifts of emphasis in national goals. The Conference, therefore, addressed itself to the important question of how such a goal-seeking and definition process could best be undertaken. The Conference noted that long-term future goals in education could only be formulated in relation to alternative views of the ways in which society and its values would develop. This implies a fundamental need for the broadest possible participation in the process of goal definition.

The Conference noted in this connection the need for indicators to be used as criteria by which the success, or lack of success, of educational policy measures in achieving their goals can be evaluated. The Conference wishes to stress, however, that this should not be confined to those aspects of education which are readily quantifiable. In view of the intimate relationships between education and other fields of policy such indicators should form a part of a broader set of social indicators. The Conference also noted the need for the development and application of techniques, which will facilitate the evaluation of alternative ways in which Member countries might seek to achieve their particular goals. The Conference felt that there could be great value to Member countries if, in the context of its ongoing work in educational planning, OECD were to address itself to these topics.

II. RESOURCES FOR EDUCATION

A. *Expenditure*

The continuing rapid rise in educational expenditure led to a concern on the part of some participants about whether a ceiling on educational expenditure is being approached in terms of proportions of national product or public expenditures which it was politically possible, or socially desirable, (given other claims on resources) to be devoted to this sector.

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However, it was generally agreed that this is a complex matter which should not be over-simplified under any one single concept:

a) There are wide differences between countries in proportions of national product devoted to education and in the priorities they assign to different expenditure items.

b) Some educational programmes are more likely to meet resource constraints than others.

c) Some methods of raising revenue may be more appropriate for some goals than for others.

There was some discussion of the role of private finance for education, either as a substitute for or a complement to public support. However, participants were of the opinion that it was inevitable and generally desirable that by far the largest proportion of educational finance would continue to come from the public sector.

B. *Efficiency*

The Conference was of the opinion that greater efforts should be made to improve efficiency. This has two meanings: first, cost efficiency, in the sense of reducing unit costs; second, more general economic efficiency in the sense of using resources only when their benefits exceed their costs. A problem in either case is that "quality" and outputs are rarely clearly defined and educational research should be directed towards identifying the outputs of education and also towards assessing "quality" in terms of output and not only in terms of input as is usual at present.

One promising approach that provides a framework for dealing with the problem of comparing output with costs is programme evaluation* and other modern management techniques. These are not a panacea for resource allocation problems. Moreover, the establishment of such a system involves costs of establishing suitable administrative machinery and devising information, statistical and management systems.

However, these techniques can make an invaluable contribution to improved resource allocation by helping to bring about:

a) more rigorous formulation of goals;

b) examination of unit costs;

c) comparisons of costs and benefits of different programmes.

One area in which it was felt that programme evaluation could make a particular contribution is in the evaluation of the costs as well as the benefits of alternative proposals for "recurrent" or continuing education in adult life. Indeed, it was felt that all new programmes should be subject to programme evaluation and established ones should have no less rigorous analysis procedures built into them.

* This is sometimes called Programme Planning and Budgeting System (PPBS), Output Budgeting, *Rationalisation des coûts budgétaires* (RCB), Cost Benefit Analysis, etc.

C. *Human Resources*

Students' time. Whatever views were held about the concept of income foregone, it was undeniable that in many countries the dependent population would increase in relation to the economically active population, and a large part of this dependent population was represented by students in school. The implementation of any educational policy should seek to make the best possible use of students' time as well as other costs.

Teachers. Labour costs represent a very high proportion of total educational expenditure. However, the adoption of the most advanced labour-saving technology would not necessarily reduce educational costs per student or improve the quality of education. Research is needed into the costs (including development costs) and benefits of specific proposals for changing the mix between teachers and other inputs. Neither should it be assumed that an educational technology that is efficient for some countries is efficient for all; the existence of differences among countries in relative prices of teachers and capital makes it efficient for different instructional techniques to be used.

D. *Conclusion*

The Conference recognized that education does not exist in isolation but is interrelated with society as a whole; in a fully employed economy additional resources for education imply a reduction in the resources available to other public or private activities. Educational systems must therefore justify their use of resources in terms of clearly defined objectives and must use those resources in ways which will yield the best value for money.

III. ISSUES IN EDUCATIONAL STRUCTURES

The Conference recognized that, while the evolution of the educational systems in the OECD area necessarily reflected the circumstances, traditions and stages of development of individual Member countries, there nevertheless existed significant areas of experience and concern which were common to many Member countries in their policies for structural changes. The following basic considerations appeared relevant:

i) Changes in educational structures represent major instruments through which (*a*) the educational process can be related more fully to the fulfilment of individuals and (*b*) educational objectives can be reconciled with social and economic needs. To be successful, structural changes are likely to call for accompanying changes in teaching/learning procedures and content.

ii) There will be an increasing period of common educational experience as a necessary foundation both for academic courses and for vocational training. Thus the need for separation into different institutions or courses will tend to be postponed, and will need to be accompanied by a properly organised process of educational and vocational

guidance, and by arrangements for ready transfer from one educational route to another.

iii) Educational structures should therefore be designed so as to ensure maximum flexibility in the system and avoid the discontinuities resulting from premature selection.

iv) It follows that the various parts of the educational system should be planned in relation to one another, and that any fundamental reform of structure should be seen as part of the more general process of educational change. Structural reforms must therefore be evolved over a period of time, in collaboration with the main participants and with the support of research and development, together with evaluation.

The Conference further recognized that:

i) Changes in each country's educational system will necessarily be developed in relation to the resources which the community can afford in competition with other priorities, and will therefore need to command public support.

ii) Educational structures should enable the skills and energies of the teachers to be released, and the students' concerns to be taken into account, to the fullest possible extent.

Within these considerations the Conference identified the following areas as among those likely to represent the future policy concerns of many Member countries:

i) The development of pre-school education, for which clear objectives and organisational forms need to be established; the main educational consideration being the importance of professionally assisted growth in these initial years of child development.

ii) Within a common school system, the development of educational approaches relevant to the individual's interests, abilities and maturity.

iii) The need for a policy of supplementary provision in the allocation of human and material resources to meet the needs of socially disadvantaged children.

iv) The need for an integrated, inter-related and multi-purpose system to expand, diversify and individualize the provision for upper secondary education and for higher and other post-secondary education.

v) The resulting need to bring about changes in structure that will make it easier for those students who wish to do so to obtain the education they want in recurrent periods throughout life rather than following immediately after completion of their secondary education.

vi) The need for preparing, supporting and re-educating teachers for the changes in their role that structural reforms make necessary.

The Conference considered that the above areas of policy deserved the close attention of Member governments. Because many of the inter-related problems and issues involved are common to many Member countries, international co-operation in these areas could be particularly rewarding in the years to come, especially in investigating forward-looking approaches to educational structures and bringing forward the implications of alternative solutions for consideration at the national level.

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IV. EDUCATIONAL PLANNING AND ITS RELATIONSHIP TO POLICY

The importance of planning in guiding and directing the development and change of education is now fully recognized. The efforts which Member countries have been making in this field over the past decade, remarkable as they have been, do not seem to be sufficient in the light of the complexity of the problems which will be encountered. Now, more than ever, educational planning must be long-term, comprehensive, integrated with general economic and social policy, and overall in the sense that it must embrace all educational activities both formal and informal.

The Conference reached the following specific conclusions: planning during the past decade has too often been limited to the quantification of a single set of long-term growth targets for the educational system. Planning should now pay attention to the qualitative as well as to the quantitative aspects of education. Planners should present an analysis of alternative policies for education based on explicit goal formulation, with short- and long-term consequences for the individual, the educational system, the economy and society as a whole. The process of choice among these alternatives should be the occasion for the widest possible participation and discussion.

The educational growth process is extremely complex. However, it appears that education has grown and will continue to grow to a great extent in response to individual and cultural needs, and social demand. In the new stages of educational development in the 1970s, it is recognized that the relationship between education and work would significantly change and therefore requires a fundamental re-examination.

There is often a gap between the activities of setting the goals of education and formulating educational policy. The process of educational planning should pay more attention to the relationship between the planning mechanisms and the formulation of educational policy.

At the higher levels, authorities should be concerned with the preparation and making of strategically important decisions. Day-to-day decisions concerning the management of education should, as far as possible, be the responsibility of local educational institutions and authorities and those who work and study in them. Planning evaluation procedures should be established at all levels of the educational system to promote innovation and development, and to feed the results of these activities back into the policy-planning process.

Incentives must be developed so that traditional structures of educational systems are encouraged to take advantage of and implement new ideas and practices emerging from the policy-planning process.

In the essential process of examining our current experience and future possibilities for education, it would be necessary to develop social indicators which monitor the performance of the school system, the evaluation of the costs, effectiveness and results of courses, the outcomes of learning, student and teacher behaviour, etc.

V. ADMINISTRATION OF EDUCATIONAL CHANGE

The Conference recognized it as a general experience of Member countries that the great quantitative expansion of the 1960s was giving way to a growing need for the qualitative development of education.

Improved education may often be sought by introducing new educational structures and new decision-making processes: these need to take account of the aspirations of different social groups and also the views of those participating in the educational process. Curriculum content, methods and organisation throughout the educational system should be kept under continuous review in order to match the rapidity of scientific growth and social change taking place.

The Conference recognized that the required changes demanded new and better methods of management, which in some cases will require reform of the existing administrative structures. Such reforms as might be required for the qualitative development of education must be decided by each country in the light of its own circumstances. Some helpful guiding principles might include an integrated and long-term policy based on a system-oriented and continuous approach, taking a democratic participation in the process into account.

Change comes about in a great variety of ways. Typically, it may be prompted by a combination of analytical approaches, results of research and development, and/or by the interaction of local views and experience. Thus, to help stimulate and achieve change, research and development and general information systems must be strengthened and stronger provision made for local initiative and involvement.

Provision should be made – by formal machinery or otherwise, as may be appropriate in each case – to develop an adequate system for the stimulation and co-ordination of the change process at all levels.

The process of change should be guided by continuous evaluation which takes into account the views of the various groups concerned within and outside the educational system.

The qualitative improvement of education can be greatly helped by new and broader techniques of planning and assessment of structural and curriculum developments.

For the effective consideration of alternative educational courses of action, an understanding of the process of educational change is necessary. Such an understanding can be greatly enhanced by international co-operation and exchange of experience. OECD has demonstrated that it can play an important role in assisting individual Member countries in their efforts. Studies of the process leading to suggestions for ways in which curriculum and structural development may be improved can be helpful and should be considered as an important element in the Organisation's programme. But the ability itself of nations to profit from international experience will increase as their own internal arrangements for advancing educational change grow in strength.

VI. SPECIAL PROBLEMS OF THE DEVELOPING MEMBER COUNTRIES

The Conference recognized that special attention should be given to the educational growth problems of the developing Member countries. Large masses of population in these countries enjoy only limited opportunities for education; moreover, in their efforts to achieve faster social and economic progress, they are faced with the problem of an inadequate supply of qualified manpower.

The Conference welcomed the priority given by the developing Member countries to education within their long-term development plans. They also expressed their satisfaction with the high rates of educational growth achieved during the sixties since the Washington Conference (1961). Participants felt, however, that there are still very large margins for educational expansion in these countries.

a) Development in recent years reveals the fact that with rising incomes, social demand for education becomes more and more pressing on educational facilities and services. Even at present, there remains a large proportion of population in the 11-15 age-group who do not attend schools. Moreover, the expansion which has already started in secondary education will continue generating a rapidly growing demand for educational services at higher levels.

b) All five countries have under implementation economic and social development plans with quite ambitious growth targets. They all underline the fact that one of the major constraints to the attainment of these targets is the lack of adequate qualified personnel. It should also be stressed that all these countries have already entered a stage of accelerated transition from an agrarian to a more diversified economy, associated with a rapid movement of population from the rural areas to the cities. Thus, their main problem, in conjunction with the need generally to raise the qualitative standards of the labour force, consists in enabling large masses of population to adapt themselves rapidly to a new social and economic environment.

Consequently, there was consensus at the Conference as to the importance of the following educational development policies to be pursued by the developing Member countries during the next decade:

a) The formulation of educational objectives and the development of social motivation for education by means of greater involvement of public opinion, particularly regional and national bodies, professional associations, students, parents, etc., with a view to promoting an effective participation of the society at large in the educational effort.

b) The institutionalization of pre-primary education for ensuring to children of less privileged families, from the cultural, social and economic viewpoint, conditions enabling them to reduce their initial cultural backwardness.

c) The extension of compulsory general education up to the age of 14 or 15 is justified on both social and economic grounds. Eight to nine years compulsory general education should be considered as a

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basic period of schooling required for the individual to be able to make his choice for the future, endow himself with the ability for further learning and for adjusting to new working conditions or job requirements. This policy, however, has to take into account the qualitative aspects of educational expansion and also the need for those who complete compulsory schooling to be able to undertake vocational responsibilities in case they do not wish to continue with further studies.

d) The rapid expansion of second-level secondary technical and vocational education is considered necessary in conjunction with economic development requirements. This branch of the system should become self-sufficient in that graduates be prepared for a responsible role in society. But students in these schools should also be given the opportunity, through proper adjustment of the curricula and the structure of these schools, to continue, if they wish, with post-secondary education studies.

e) Coincident with the development of the universities, the expansion of non-university higher education in order to meet the demand for higher education seems advisable, particularly to cope with the supply of the large number of technicians and other qualified personnel who are required by the economy and for whom the qualifications imply post-secondary education.

f) The development of adult education programmes aimed at ensuring more advanced education to large numbers of persons who did not have the opportunity to complete their education to the present level of compulsory schooling.

g) There is reason to believe that a rapid expansion of enrolments at the expense of quality would jeopardize the main objectives of educational development policies in the developing Member countries, namely, the importance of cultural development and the maintenance of the standard of skills required for the building up of a modern economy. Therefore, a more intensive mobilization of financial resources will be required and special measures will have to be taken to solve the major problem of teacher shortage over the next decade as well as to introduce new technology into the educational system.

h) The success of the effort in the field of education in the developing Member countries will depend, to a great extent, on the improvement of their central, regional and local planning organisations and techniques.

The Conference noted with satisfaction that it is envisaged, within the educational programmes of the Organisation, to assist, on the basis of co-operative endeavours, the developing Member countries in their educational planning activities and in the study of more specific key educational reforms or development projects.

II

LIST OF PARTICIPANTS

AUSTRIA

Dr. H. Nowotny
Ministerialrat
Federal Ministry of Education

Dr. Leitner
Federal Ministry of Education

Dr. W. Clement
Universitätsprofessor

BELGIUM

Mr. P. Vanbergen
Directeur général de l'administration de l'organisation des études
Ministère de l'Education nationale

Mr. Poulaert
Directeur général d'administration de l'enseignement supérieur
et de la recherche scientifique
Ministère de l'Education nationale

Mr. Geens
Directeur général de l'enseignement technique
Ministère de l'Education nationale

CANADA

The Hon. R.C. Clark
Minister of Education
Province of Alberta

Mr. Jean-Marie Beauchemin
Associate Deputy Minister of Education
Province of Quebec

Mr. J.K. Crossley
Director of Curriculum
Department of Education
Province of Ontario

Mr. R.J. Lachapelle
Department of Manpower and Immigration, Ottawa
Member of the Committee for Scientific and Technical Personnel

Dr. L.W. Downey
Observer

DENMARK

Mr. B. Brynskov
Deputy Under-Secretary
Ministry of Education

Mr. E. Goldschmidt
Deputy Head of Department
Ministry of Education
Member of the Committee for Scientific and Technical Personnel

FINLAND

Mrs. Pirkko Mela
Assistant Head of Department
Department of International Relations
Ministry of Education
Member of the Committee for Scientific and Technical Personnel

Mr. Seppo Kiiskinen
Science and University Department
Ministry of Education

FRANCE

Mr. Pierre Billecocq
Secrétaire d'Etat à l'Education nationale

Mr. Jean-Claude Groshens
Directeur de la Prévision
Ministère de l'Education nationale

Mr. Jean Auba
Chargé de mission à la Recherche pédagogique
Ministère de l'Education nationale

Mr. Jean Knapp
Chargé de mission aux Relations internationales
Ministère de l'Education nationale

Mr. André Bruyère
Directeur adjoint délégué aux Objectifs de l'enseignement technique
Ministère de l'Education nationale

Mr. Fredet
Conseiller technique au Cabinet du ministre de l'Education nationale

Mr. Gabriel Beis
Conseiller technique au Cabinet du Secrétaire d'Etat
Ministère de l'Education nationale

Mr. Roger Grandbois
Inspecteur général de l'Instruction publique
Ministère de l'Education nationale

Mr. Georges Tallon
Inspecteur d'académie

Mr. Max Delacquis
Inspecteur d'académie

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Mr. Michel Biju-Duval
Sous-directeur aux Affaires budgétaires
Ministère de l'Education nationale

GERMANY

Mrs. Dr. H. Hamm-Brücher
Staatssekretär
Bundesministerium für Bildung und Wissenschaft

Prof. Dr. Hahn
Kultus minister
Land Baden-Württemberg

Dr. G. Roeloffs
Ministerialrat
Bundesministerium für Bildung und Wissenschaft

Dr. R. Berger
Regierungsdirektor
Bundesministerium für Bildung und Wissenschaft
Member of the Committee for Scientific and Technical Personnel

Prof. Dr. Oehler
Leitender Ministerialrat
Hessisches Kultusministerium

Mr. Knauss
Regierungsdirektor
Bayerisches Staatsministerium für Unterricht und Kultus

Mr. Dettinger-Klemm
Ministerialrat
Kultusministerium Baden-Württemberg

GREECE

Mr. Théodore Georgoussis
Inspector General of Education

Mr. John Tzizis
Counsellor
Permanent Delegation of Greece to the OECD

IRELAND

Mr. Padraig S. O'Nuallain
Deputy-Chief Inspector
Post-Primary Division
Department of Education

Mr. Sean O'Mathuna
Principal Officer
Department of Education

ITALY

Prof. Aldo Visalberghi
Ordinario di Pedagogia
Università di Roma
Member of the Governing Board of CERI

Prof. Bernardo Colombo
Ordinario di Statistica
Università di Padova

Prof. Saverio Avveduto
Ministero della Pubblica Istruzione, DGIU
Member of the Committee for Scientific and Technical Personnel

Dr. Luciano Benadusi
Ministero del Bilancio e della Programmazione, ISPE

Dr. Laura Tini
Facoltà di Magistero
Università di Roma

JAPAN

Mr. Isao Amagi
Vice-Minister
Ministry of Education

Mr. Kikuo Nishida
Director
Ministry of Education
Member of the Committee for Scientific and Technical Personnel

Mr. Akimasa Mitsuda
Research Division
Ministry of Education

Mr. Toshio Oshima
Permanent Delegation of Japan to the OECD

LUXEMBOURG

Mr. Paul Schleimer
Directeur honoraire
Ministère de l'Education nationale
Member of the Committee for Scientific and Technical Personnel

NETHERLANDS

Mr. Grosheide
Secretary of State for Education

Drs. H. Veldkamp
Ministry of Education and Sciences
Member of the Committee for Scientific and Technical Personnel

Drs. Staleman
Ministry of Education and Sciences
Member of the Committee for Scientific and Technical Personnel

Mr. Ch. H. van Norden
Ministry of Education and Sciences
Member of the Committee for Scientific and Technical Personnel

NORWAY

Mr. Arnfinn Sørensen
Under-Secretary of State
Ministry of Education and Ecclesiastical Affairs

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Mr. Kjell Eide
Director General
Ministry of Education and Ecclesiastical Affairs
Member of the Committee for Scientific and Technical Personnel

Mr. Johan Bjørge
Director General
Ministry of Education and Ecclesiastical Affairs

PORTUGAL

Prof. Joao Frausto de Silva
Président
Directeur du Cabinet d'Etudes et de Planification de l'Action Educative (GEPAE)

Mr. José Prostes da Fonseca
Ingénieur
Directeur du Cabinet d'Etudes et de Planification des Constructions scolaires
Member of the Committee for Scientific and Technical Personnel

Mr. Pedro Loff
Responsable des Divisions de Planification et de Statistiques (GEPAE)

Mr. Amaro da Costa
Ingénieur
Adjoint du Président de la Direction du GEPAE pour l'Enseignement supérieur

Mrs. Maria Theresa Ambrosio
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